Galaxy® Series
AF-3050

Display Manual

ED13462

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Section 1: Introduction

1.1 How To Use This Manual

This manual explains the installation and maintenance of Galaxy® 20mm series AF-3050 displays. For questions regarding the safety, installation, operation, or service of this system, please refer to the telephone numbers listed on the cover page of this manual.

The manual is divided into five sections: Introduction, Mechanical Installation, Electrical Installation, Maintenance and Troubleshooting, and Appendix A.

- **Introduction:** Covers the basic information needed to make the most of the rest of this manual. Take time to read the entire introduction as it defines terms and explains concepts used throughout the manual.
- **Mechanical Installation:** Provides general guidance on sign mounting.
- **Electrical Installation:** Offers general guidance on terminating power and signal cable at the sign.
- **Maintenance and Troubleshooting:** Addresses such things as removing basic sign components, troubleshooting the sign, performing general maintenance and exchanging sign components.
- **Appendix A:** Includes the drawings referenced in this manual.

Daktronics identifies manuals by an ED number located on the cover page of each manual. For example, this manual would be referred to as **ED13462**.

Listed below are a number of drawing types commonly used by Daktronics, along with the information that each is likely to provide. This manual might not contain all these drawings.

- **System Riser Diagrams:** Overall system layout from control computer to sign, power and phase requirements.
- **Shop Drawings:** Fan locations, mounting information, power and signal entrance points and access method (front and rear).
- **Schematics:** Power and signal wiring for various components.
- **Component Placement Diagrams:** Locations of critical internal sign components such as power supply assemblies, controller boards, thermostats and light detectors.

Figure 1 below illustrates Daktronics drawing label. The drawing number is located in the lower-right corner of the drawing. Listing the last set of digits and the letter preceding them identifies drawings in the manual. In the example below, the drawing would be referred to as **Drawing A-69945**. Reference drawings are inserted in **Appendix A**.

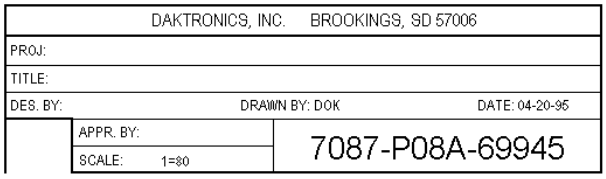


Figure 1: Drawing Label

All references to drawing numbers, appendices, figures, or other manuals are presented in **bold** typeface, as shown below.

"Refer to **Drawing A-69945** in **Appendix A** for the power supply location."

Additionally, drawings referenced in a particular section are listed at the beginning of that section as seen in the following example:

Reference Drawing:

Component Placement Diagram..... **Drawing A-69945**

Daktronics signs are built for long life and require little maintenance. However, from time to time, certain sign components will need replacing. The **Replacement Parts List** in **Section 4.11** provides the names and part number of components that may need to be ordered during the life of the sign. Most sign components have a white label that lists the part number. The component part number is in the following format: 0P-_ _ _ _-_ _ _ _ (circuit board) or 0A-_ _ _ _-_ _ _ _ (multi-component assembly).

Following the **Replacement Parts List** is the **Daktronics Exchange and Repair and Return Programs** in **Section 4.12**. Refer to these instructions if any sign component needs replacement or repair.

1.2 Safety Precautions

Important Safeguards:

1. Read and understand these instructions before installing.
2. Be sure the sign is properly grounded.
3. Disconnect power when servicing the sign.
4. Do not modify the sign structure or attach any panels or coverings to the sign without the written consent of Daktronics, Inc.

1.3 System Overview

Daktronics Galaxy AF-3050 signs are designed and manufactured for performance, reliability, easy maintenance and long life. The pixels have a 20mm center-to-center spacing, and are lit using LEDs (light emitting diodes). Each sign section has minimum 6-inch character height. A light sensor on the front of the sign is used for automatic dimming of the LEDs based on the ambient light levels. The configuration of pixels depends on the model of sign ordered.

The Galaxy model numbers are described as follows: **AF-3050-CCCxBBB-20-R**

AF-3050	:	Outdoor Galaxy Sign
CCC	:	Number of Rows High
BBB	:	Number of Columns Long
20	:	20mm center-to-center spacing with 6" Minimum Character Height
R	:	LED Color (Monochrome Amber or Red)

1.4 Component Identification

The following illustrations depict some of the more commonly accessed Galaxy sign components. Because Daktronics occasionally alters standard design to meet customer needs, the actual sign design may very slightly from the illustrations below.

This is only a brief overview. Refer to **Section 4** for more detailed information on maintaining and troubleshooting various sign components.

Com Port: Connector on the back of the control computer. The COM port is used to control the sign network through either a 9- or a 25-pin serial connector.

Controller: "Brains" of the sign (refer to **Figure 2** below). The controller receives signal information from the control computer, translates it, and activates the appropriate pixels on the sign accordingly.

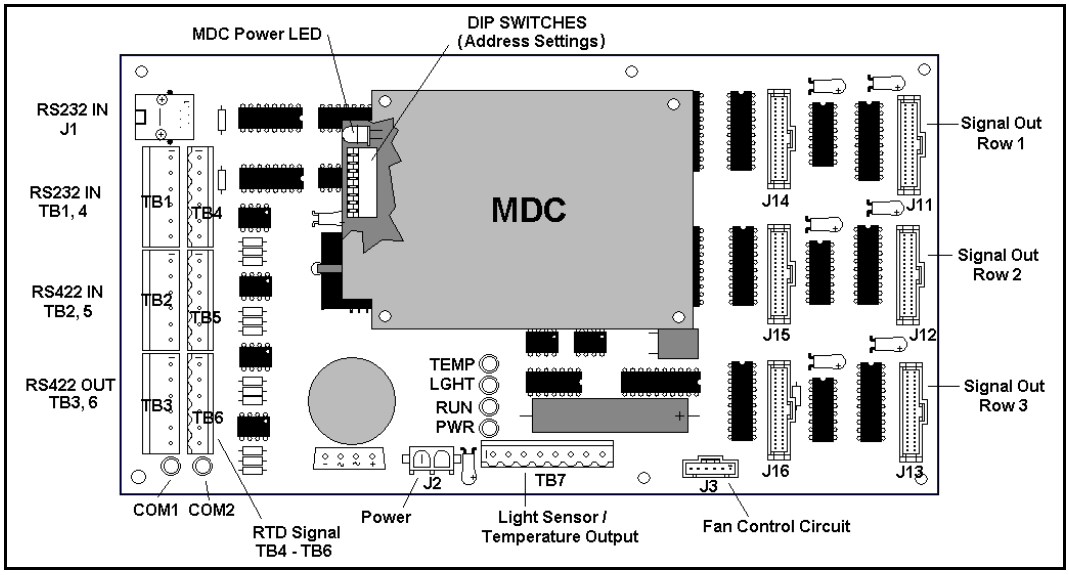


Figure 2: Controller

Galaxy®: Daktronics trademarked name for LED monochrome or tri-colored matrix signs.

Network: Consists of multiple signs connected to each other.

RS422: Standard differential communication type with a maximum cable length of 4000 feet (1.2 kilometers).

Sign Address: Identification number assigned to each sign of a network. It is set by flipping DIP switches on the controller. The control software uses the address to locate and communicate with each sign. Signs that are on the same network cannot have the same address.

Signal Converter: Daktronics supplied unit that converts the data from RS232 to RS422. The signal converter is usually used in RS422 systems.

Refer to **Figure 3** on the following page while reading the following component descriptions.

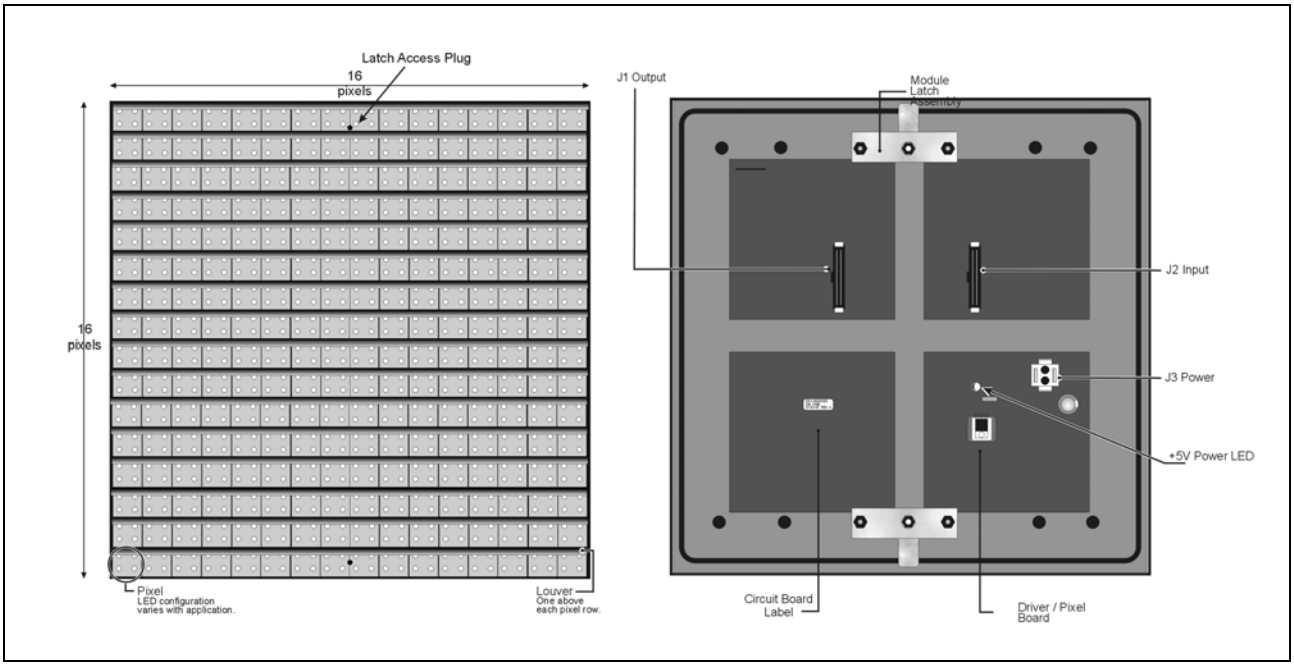


Figure 3: 16x16Pixel Module (Front and Rear)

Driver/Pixel Board: The LED pixels are mounted directly onto the driver/pixel board. This board is also responsible for the switching and intensity levels of the LEDs.

LED (light emitting diode): Low energy, high intensity lighting units.

Louver: Optional black plastic shade positioned horizontally above each pixel row. The louvers increase the level of contrast on the sign face and direct LED light.

Module: 20mm Galaxy modules are 16 pixels high by 16 pixels wide (refer to **Figure 3** above). Each module is individually removable from the front of the sign.

Module Latch Assembly: Device utilizing a rotating retainer bar to hold the module firmly to the sign frame. There are two per module: one near the top and one near the bottom.

Pixel: Cluster of LEDs. The number and color of the LEDs depends on sign application.

Power Supply: Converts AC line voltage from the load center to low DC voltage for one or more module driver boards.

1.5 Daktronics Nomenclature

To fully understand some Daktronics drawings, such as schematics, it is necessary to know how various components are labeled in those drawings. This information is also useful when trying to communicate maintenance or troubleshooting efforts.

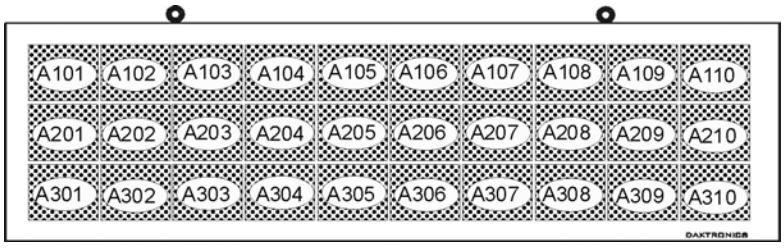


Figure 4: Module Numbering Example – 24x80 Front

A module is the building block of the Galaxy sign. Each module measures 16 pixels high by 16 pixels wide. By placing modules side-by-side and on top of one another a sign of any size can be designed and built. Individual modules can be easily removed from the sign if required. **Figure 4** above illustrates how Daktronics numbers modules on a Galaxy sign. **Figure 5** on the right breaks down the module numbering method.

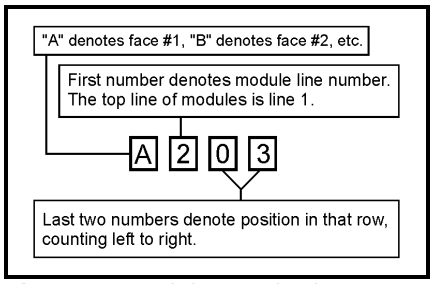


Figure 5: Module Numbering

The label "A" on a drawing typically denotes an assembly. An assembly can be a single circuit board or a collection of components that function together, usually mounted on a single plate or in a single enclosure. Assemblies are divided into two types: those that route signal and those that route power.

In addition, the following labeling formats might be found on various Daktronics drawings:

- "TB_ _" indicates a termination block for power or signal cable.
- "F_ _" signifies a fuse.
- "E_ _" stands for a grounding point.
- "J_ _" represents a power or signal jack.
- "P_ _" symbolizes a power or signal plug for the opposite jack.

Finally, Daktronics part numbers are commonly found on drawings. Those part numbers can be used when requesting replacement parts from Daktronics Customer Service. Take note of the following part number formats:

- "0P-_ _ _ _-_ _ _ _" designates an individual circuit board, such as a line receiver.
- "0A-_ _ _ _-_ _ _ _" indicates an assembly, such as a circuit board and the plate or bracket to which it is mounted. A collection of circuit boards working as a single unit may also carry an assembly label.
- "W-_ _ _ _" denotes a wire or cable. Cables may also carry the assembly numbering format in certain circumstances. This is especially true of ribbon cables.
- "F-_ _ _ _" specifies a fuse.

0P-1195-0001
SN: 6343
05/19/99 REV.1

Figure 6: Typical Label

Most circuit boards and components within this sign carry a label that lists the part number of the unit. If a circuit board or assembly is not listed in the replacement parts list in **Section 4**, use the label to order a replacement. A typical label is shown in **Figure 6** above. The part number is in bold.

Section 2: Mechanical Installation

The Daktronics engineering staff must approve **any** changes made to the display. Before altering the display, detailed drawings for the proposed modifications must be submitted to the Daktronics engineering staff for evaluation and approval or the warranty will be rendered null and void.

Note: Daktronics does not guarantee the warranty in situations where the display is not constantly in a stable environment.

2.1 Installation Requirements

An adequate support structure and mounting hardware must be present to mount the sign in a safe and stable manner. **It is the installer's responsibility to ensure the mounting structure and mounting hardware are capable of supporting the display, and will agree with local codes.**

Before beginning the installation process, verify the following:

- The mounting structure will provide a straight and square-mounting frame for the display.
- The mounting structure is capable of supporting the display and will not yield at any unsupported points after mounting.
- Clearance: 3" of unobstructed space is available below the display for proper ventilation of the sign. Unobstructed space is needed for eyebolt removal/clearance above the sign. Additional space may be required depending on the mounting method used.

Correct any deficiencies before installation.

Note: Daktronics is not responsible for the support structure or structural integrity of the mounting structure.

2.2 Ventilation Requirements

Fans are mounted in the bottom of the sign for ventilation. Maintain a minimum distance of 3" (7.62-cm) below the sign to maintain proper airflow.

If the sign cabinet is completely enclosed:

- 12 square inches of unobstructed opening per module must be provided to ensure adequate cooling.
- Allowances must be made to compensate for the percentage of material covering the openings in the structure.
- For adequate cooling, forced ventilation may be required. If air is forced into the enclosed cabinet, 19 cubic feet per minute must be provided per module (12.48" x 12.48 " active area).

If these requirements are not met, the Galaxy sign warranty may be void.

2.3 Lifting the Display

The top of the display is equipped with eyebolts that are used to lift the unit. Take special care not to exceed the rated load of the eyebolts. Refer to the information at the end of this section to determine the allowable load of the eyebolts.

Figure 7 below illustrates both the **correct** (left example) and the **incorrect** (right example) method of lifting a display. By using the non-recommended form on the right, the eyebolt may break. Lift the display as shown on the left, with the lifting bar. Use every lifting point provided.

Do not attempt to permanently support the display by the eyebolts.

If removing the eyebolts, adequately seal the holes using 13 bolts and sealing washers, ½ inch in size. Silicone along the threads. This ensures that water does not enter the display.

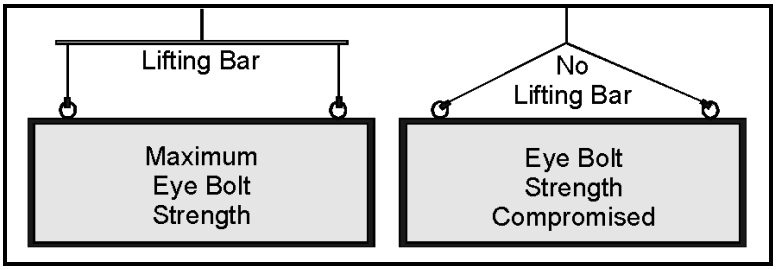


Figure 7: Lifting the Display

2.4 Display Cabinet Mounting

1. Carefully uncrate the display. Look each side of the display over for signs of damage during shipping.
2. Following the guidelines described in **Section 2.3**, lift the display into position on the support structure.
3. Because mounting design will vary for the sign, Daktronics cannot provide additional detailed information. Follow the instructions provided by the sign company for mounting your particular sign(s).
4. Refer to **Section 1** for information on routing power and signal.

Refer to **Section 3** for wiring instructions.

Section 3: Electrical Installation

Only a qualified individual should terminate power and signal cable within this Daktronics display.

The Daktronics engineering staff must approve **any** changes made to the display. Before altering the display, submit detailed drawings for the proposed modifications to the Daktronics engineering staff for evaluation and approval or the warranty will be rendered null and void.

3.1 Common Connectors in the Display

The power and signal connections in the displays use many different types of connectors. Take special care when disengaging any connector so as not to damage the connector, the cable or the circuit board.

When unplugging a connector plug from a jack, **do not** pull on the wire or cable; pull on the jack itself. Pulling on the wires may damage the connector.

The following information presents some common connectors encountered during display installation and maintenance:

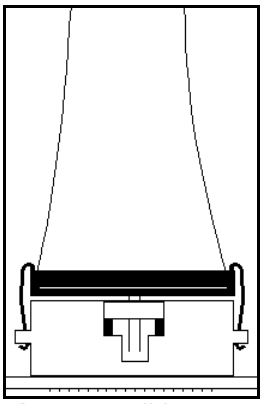


Figure 8: Ribbon Cable Connector

1. **Ribbon Cable Connectors:**
   Figure 8 on the right illustrates a typical ribbon connector. To disconnect the ribbon cable, push the metal clips on the sides to unlock and remove the jack.

   Before replacing a ribbon cable connector, spray it with Deoxit™ contact cleaner to remove any foreign matter that may cause signal problems. In addition, apply a generous amount of Cailube™ protector paste to the plug before inserting it into the jack. This paste will protect both the plug and the jack from corrosion.

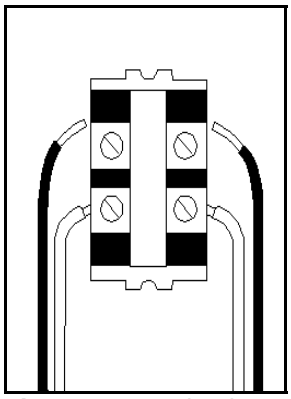


Figure 9: Termination Block

2. **Termination Blocks:**
   Termination blocks are usually used to connect internal power and signal wires to wires of the same type coming into the display from an external source. Most signal wires will come with forked connectors crimped to the ends of the wire. Power wires need to have one-half inch of insulation stripped from the end of the wire prior to termination. Tighten all screws firmly to ensure a good electrical connection. Refer to **Figure 9** on the right.

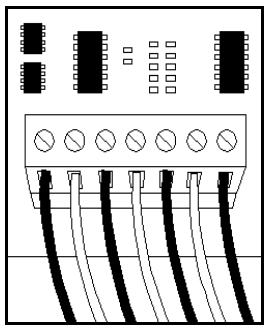


Figure 10: Phoenix Connector

3. **Phoenix™-Style Connectors:**
   Phoenix-style connectors, which are usually green, are often used for signal termination on circuit boards. Refer to **Figure 10** on the right. Strip one-quarter inch of insulation from the wire prior to termination. To remove a wire, turn the above screw counter-clockwise to loose the connectors grip on the wire. To insert a wire, push the bare wire into the connector and turn the above screw clockwise to lock the wire into place.

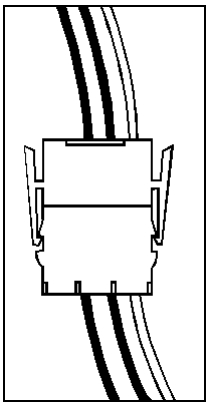


Figure 11: Mate-n-Loc Connector

4. Mate-n-Lok™ Connectors:
The Mate-n-Lok connectors found in the displays are white and come in a variety of sizes. **Figure 11** on the left illustrates a five-pin Mate-n-Lok connector. To remove the plug form the jack, squeeze the plastic locking clasps on the side of the plug and pull it from the jack.

5. Phone Jacks (RJ11/RJ45 Connectors):
RJ connectors, as seen on the right in **Figure 12**, are similar to the telephone connectors found in homes and are used on the ends of RJ45 cable. In order to remove this plug from the jack, depress the small clip on the underside of the plug.

Before replacing an RJ connector, spray it with Deoxit™ contact cleaner to remove any foreign matter that may cause signal problems. In addition, apply a generous amount of Cailube™ protector paste to the plug before inserting it into the jack. This paste will protect both the plug and the jack from corrosion.

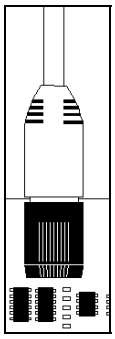


Figure 12: RJ11/ RJ45 Connector

3.2 Control Cable Categories

Daktronics has identified four general categories for control cable. Most commonly used for installation in conduit are shielded and unshielded cable.

Unshielded Cable
Unshielded cable consists of paired wires. These wires should not be subjected to mechanical flexing after installation. This cable is **not** for direct burial and should have one of the following routings:

- In dedicated metallic conduit
- In plastic conduit away from interference signals
- Inside buildings – if cable is not in conduit, keep away from interference signals

Shielded Cable
This cable has stranded wire that is paired and overall shielded, and may be subjected to interference signals. It does not need to have a dedicated metallic conduit. The shield **must** be properly terminated at the controller. The cable can be subjected to some flexing after installation. Cable is **not** for direct burial. **Do not** use this in conduit with power conductors.

With interference signals, such as power conductors, intercom, etc., a two-foot separation is typically required.

Direct Burial Cable
This application uses a paired, overall shielded, solid, direct burial cable. It is intended that this cable type be typically used underground without conduit.

High Voltage Insulation Cable
This cable uses an individually shielded pair of stranded wires. The insulation rating is 600V and 60 degrees Celsius. Cable routing may be with power conductors. This category is discouraged when other routing is possible. The National Electric Code has specific requirements concerning the voltage rating of cables with power conductors. All applicable electrical and building codes must be followed.

Conduit, and the labor to pull cable through the conduit, is the responsibility of the customer and/or contractor.

3.3 Conduit

Daktronics does not include the conduit. Separate conduit must be used to route:

- Power
- Signal IN wires
- Signal OUT wires (if signal is required for another sign)
- Temp sensor

The conduit holes should located at the bottom right (rear view) of the back of the sign.

Punch or drill out the desired conduit openings. **Be careful that none of the internal components are damaged**. Attach the conduit and route the power and signal cables. Refer **Figure 3** for a picture of the power and signal termination panels.

For signs with more than one face, signal and temperature sensor wiring between signs can be routed through the same conduit.

3.4 Preparing for Power/Signal Connection

1. Punch in ½" knockouts (0.875 holes) or drill 7/8" (0.875) holes for the desired conduit openings. **Be careful that none of the internal components are damaged**. Attach the conduit. Refer to the **component layout drawing** specific to your sign type for internal components.
2. Remove the bottom left two modules (AX01 and AX02) to expose the power enclosure and signal panel. To do this, use a 1/8-inch Allen wrench to turn the latch access fasteners one-quarter turn. Turn the top latch clockwise and the bottom latch counter-clockwise. Lift the module away from the display, then reach behind it and disconnect all power and signal connections.
3. Locate the controller for these displays. The controller is shown in **Figure 2** located within **Section 1.4**. The controller receives the incoming signal and relays it to the individual modules. Now locate the power termination box. These are located according to component replacement drawings.
4. Route power to the display through a fused disconnect switch capable of opening all ungrounded power conductors. Install this disconnect within the line of sight of any personnel performing maintenance on the display. If the disconnect is located out of sight of the display, it must be capable of being locked in the open position.
5. Power conductors from the disconnect to the display should be routed through conduit in agreement with local code.
6. You may route the signal cable from the control computer to the sign at this time also. **Be sure to run the power and signal cables in a separate conduit.**

3.5 Power

Proper power installation is imperative for proper display operation. The following sub-sections give details of display power installation. Qualified personnel must perform electrical installations. Unqualified personnel should not attempt to install the electrical equipment. Serious danger to equipment and personnel could occur if equipment is improperly installed.

Grounding

Displays **must** be grounded according to the provisions outlined in Article 250 of the National Electrical Code®. Daktronics recommends a resistance to ground of 10 ohms or less. The electrical contractor who is performing the electrical installation can perform verification of ground resistance. Daktronics Sales and Service personnel can also perform this service

The display system **must** be connected to earth-ground. Proper grounding is necessary for reliable equipment operation. It also protects the equipment from damaging electrical disturbances and lightning. **The display must be properly grounded or the warranty will be void.**

The material of an earth-ground electrode differs from region to region and from conditions present at the site. Consult the National Electrical Code and any local electrical codes that may apply. The support structure of the display cannot be used as an earth-ground electrode. The support is generally embedded in concrete, and if in earth, the steel is either primed or it corrodes, making it a poor ground.

Power Installation

There are two considerations for power installation: installation with ground and neutral conductors provided and installation with only a neutral conductor provided. These two power installations differ slightly, as described in the following paragraphs:

Installation with Ground and Neutral Conductors Provided

For this type of installation, the power cable **must** contain an isolated earth-ground conductor. Under this circumstance, **do not** connect neutral to ground at the disconnect or at the display. This would violate electrical codes and void the warranty. Use a disconnect so that all hot lines and neutral can be disconnected. The National Electrical Code requires the use of a lockable power disconnect within sight of or at the display.

Installation with Only a Neutral Conductor Provided

Installations where no grounding conductor is provided must comply with Article 250-32 of the National Electrical Code. If the installation in question meets all of the requirements of Article 250-32, the following guidelines must be observed:

- Connect the grounding electrode cable at the local disconnect, never at the display driver enclosure.
- A disconnect that opens all of the ungrounded phase conductors should be used.
- The neutral and the ground conductors should be bonded at the ground lug termination point in the receptacle within the display driver enclosure.

3.6 Signal

RS422 Cable Requirements

This cable is a 6-conductor shielded cable used to transmit an RS/422 signal. This shielded cable consists of unpaired wires. They should not be subjected to mechanical flexing after installation. This cable is not for direct burial and should have one of the following routings:

- In dedicated metallic conduit
- Inside buildings – if cable is not in conduit, keep away from interference signals.

With interference signals (such as power conductors, intercom, etc.) typically a two-foot separation is required. The maximum length of an RS/422 signal cable is 4,000 feet (1.22 kilometers).

Signal Connection from Computer to Sign

One end of the signal cable should be terminated to the 6-position terminal block in the sign labeled "RS422 IN" (TB2). The opposite end is terminated at the signal converter (Daktronics part number 0A-1127-0237) in the control room.

Signal Converter (J4/J5)	Field Cabling	Terminal Block TB2 (RS422 In)
Pin 1 (GND)	Red	Pin 1 (GND)
Pin 2 (RX-P)	Black	Pin 2 (TX-P)
Pin 3 (RX-N)	Brown	Pin 3 (TX-N)
Pin 4 (TX-P)	White	Pin 4 (RX-P)
Pin 5 (TX-N)	Blue	Pin 5 (RX-N)
Pin 6 (GND)	Green	Pin 6 (GND)

Signal Termination Between Two (or More) Signs

This is the most common method of terminating signal between two or more signs. A 6-conductor cable is used and one end terminates at the "RS422 OUT" 6-position terminal block (TB3) on the first sign. The other end terminates at the "RS422 IN" 6-position terminal block (TB2) in the second sign.

Sign A Data Out (TB3)	Field Cabling	Sign B Data In (TB2)
Pin 1 (GND)	Green	Pin 6 (GND)
Pin 2 (Data TX-N)	Blue	Pin 5 (Data RX-N)
Pin 3 (Data TX-P)	White	Pin 4 (Data RX-P)
Pin 4 (Data RX-N)	Brown	Pin 3 (Data TX-N)
Pin 5 (Data RX-P)	Black	Pin 2 (Data TX-P)
Pin 6 (GND)	Red	Pin 1 (GND)
Pin 6(GND)	Bare (Shield)	N.C.

Note: Refer to **Section 4.2** for the modem information. This is found on pages **4-1** and **4-2**.

3.7 First Time Operation

When first operated, the sign will run through an initialization in which it will display the following:

1. Output Test (DDDs)
2. Product Name (Galaxy)
3. Sign Size (Row x Column)
4. Firmware Number (**ED10134**)

5. Firmware Revision (Rev X.XX)
6. COM1 Configuration (C1: V15/RTD)
7. COM2 Configuration (C2: None)
8. Line Frequency (60 Hz)
9. Hardware Address (HW: XX)
10. Software Address (SW: XX)
11. Sign Name
12. Modem if Present (Modem)

3.8 Main Disconnect

The National Electrical Code requires the use of a lockable power disconnect near the sign. Provide a lockable disconnect switch (knife switch) at the sign location so that all power lines can be completely disconnected. Use a 3-conductor disconnect so that both hot lines and the neutral can all be disconnected. The main disconnect should be mounted at or near the point of power supply connection to the sign. A main disconnect is to be provided for each supply circuit to the sign.

The disconnecting means must be located in a direct line of sight from the sign or outline lighting that it controls. This requirement provides protection by enabling a worker to keep the disconnecting means within view while working on the sign.

Exception: Disconnecting means that are capable of being locked in the open position may be located elsewhere.

Section 4: Maintenance and Troubleshooting

Important Notes:

1. **Power must be turned off before any repair or maintenance work is done on the display.**
2. **Qualified service personnel must make any access to internal display electronics.**
3. **The Daktronics engineering staff must approve ANY changes made to the display. Before altering the display, detailed drawings for the proposed modifications must be submitted to the Daktronics engineering staff for evaluation and approval or the warranty will be rendered null and void.**

4.1 Maintenance and Troubleshooting Overview

The 20mm Galaxy displays are **front** accessible; meaning access to the internal components can be gained only from the front of the display.

This section provides the following Galaxy display information:

- **Signal Routing Summaries:** Provide a basic explanation of the power travel through the display.
- **Power Routing Summaries:** Offer a basic explanation of the power travel through the display.
- **Service and Diagnostics:** Give instructions for removing various display components and explains the functions of circuit board connectors and the meanings of any diagnostic LEDs.
- **Maintenance:** Records a number of steps to take to keep this Galaxy display in safe, working order.
- **Troubleshooting:** Supplies some possible display malfunctions and provides a number of possible causes for that malfunction.
- **Replacement Parts List:** Recommends the descriptions and numbers of display components that could possibly need replacing during the life of this display.
- **Daktronics Exchange and Repair and Return Programs:** Explain the Daktronics component return policy.

4.2 Signal Summary

The signal routing for the display can be summarized as follows:

1. Data from the controller computer travels via an RS422 cable into face “A” of the display.
2. RS422 cable relays signal between the face “A” controller and the face “B” controller.
3. The signal then travels over a 40-conductor ribbon cables from J11/J12 on the controller to P2 on the driver of the first column of modules in each display face.
4. Data exits at J1 and is relayed to J2 of the next driver board. The data from the controller jack travels down the entire row of modules. The drivers use this display data to control the LEDs.

Modem

If a modem was ordered with the display, it will be mounted inside the display cabinet, near the controller. The modem is used in lieu of a direct communication line with the computer.

The modem is held in place with the use of plastic rails known as a "snap trac." To replace a failed modem, disconnect all attached cables and carefully "snap" it out of the rails. Insert the new modem by first laying one end into the rails of the "snap track," then pivot it up and snap into place.

4.3 Power Summary

The power routing for the display can be summarized as follows:

1. Incoming power terminates at the termination block (TB41) within the power termination enclosure. Before leaving the enclosure, the power is sent through a fuse and an RFI electrical filter.

2. Power for the controller board passes through a transformer located on the controller/power panel.

3. 3VDC power supplies are used to power the modules. Power supplies are pre-set at 3.6 VDC.

4.4 Service and Diagnostics

The following sub-sections address servicing of the following display components:

- transformer, RFI filter and fuse
- controller
- modules, drivers and power supplies

The sub-sections also address any diagnostic LEDs, fuses and signal/power connectors found on the unit.

On the components are denoted as follows.

Component…	Denoted As…	Location…
Filter, Transformer and Fuse	0A-1215-4002	Inside the power termination box (behind module A202)
Controller	0A-1146-0035	Inside the controller/power panel (behind module A201)
Modules	0A-1266-2002 0A-1266-2003	Over entire face of the display (includes driver)
Power Supplies	0A-1289-4001 0A-1289-4002 0A-1289-4003 0A-1289-4004 0Z-9854-3300P 0Z-10162-3300P 0Z-10095-300P 0Z10052-3300P	Varies by sign size

Transformer, RFI Filter and Fuse

Transformer

The transformer is located in the upper portion of the power enclosure (T1). To replace the transformer, first disconnect all the wires attached to it. **Turn off power to the display before**

removing the wires. Then release the hardware securing it to the inside of the enclosure. Position the new transformer in its place, and tighten it down. Re-connect all the wires.

RFI Filter

The RFI electrical filters are mounted inside the power enclosure on either side of the transformer (Z1 and Z2). Like the transformer, the filters can be replaced by first removing all connecting wires, then releasing the attachment hardware. Install the new filter.

Fuse

The MWO-15 fuse is located in the left side of the power enclosure (F1). To replace the fuse, push and turn the fuse cap, insert the new fuse into the cap and reattach. Replace the fuse only with fuses of the same type and rating.

Controller

The controller sends data to the modules. Refer to the signal summary in **Section 4.2** for more information on the location of the controller board.

A typical controller is illustrated in **Figure 13** below.

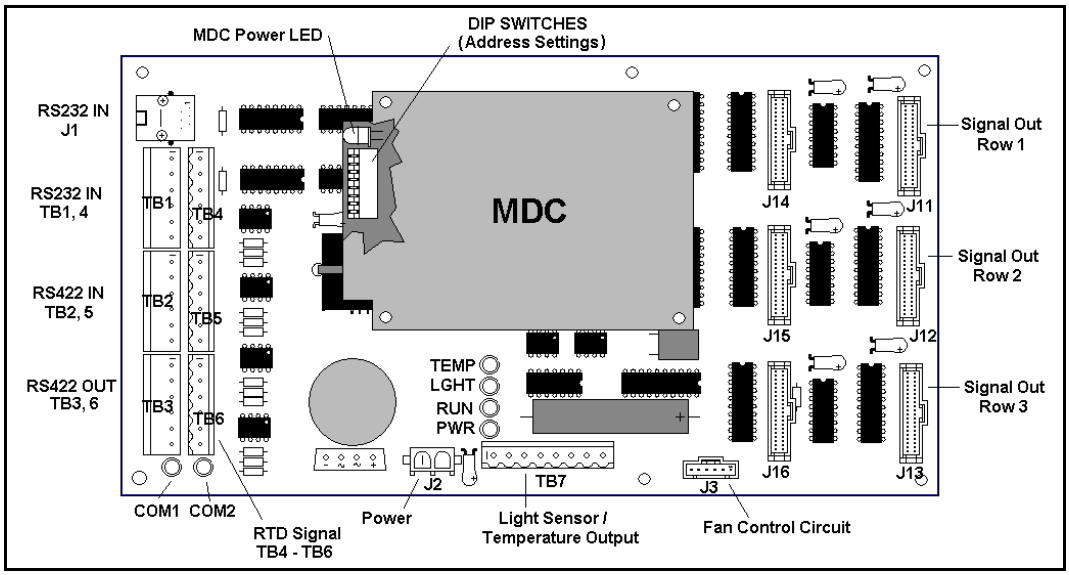


Figure 13: Controller Component Layout

"DIP" switches are located on the controller's MDC. These DIP switches set the hardware address, which is used by the software to identify that particular sign. When replacing a controller board, be sure to set the DIP switches in the same address configuration as the defective controller.

Note: Setting the DIP switches to address 0 (turn all the switches to OFF by flipping them toward the printed switch numbers) can activate a test mode. The display's power must be downed, and then reconnected to run the test mode.

Switch 8	Switch 7	Switch 6	Switch 5	Switch 4	Switch 3	Switch 2	Switch 1	Address
Off	Off	Off	Off	Off	Off	Off	Off	**Test Mode**
Off	Off	Off	Off	Off	Off	Off	On	**1**
Off	Off	Off	Off	Off	Off	On	Off	**2**
Off	Off	Off	Off	Off	Off	On	On	**3**
Off	Off	Off	Off	Off	On	Off	Off	**4**
Off	Off	Off	Off	Off	On	Off	On	**5**
Off	Off	Off	Off	Off	On	On	Off	**6**
Off	Off	Off	Off	Off	On	On	On	**7**
…	…	…	…	…	…	…	…	**…**
On	On	On	On	Off	Off	Off	Off	**240**

Four diagnostic LEDs are located on the controller. The following table explains what each LED represents:

LED	Color	Function	Operation	Summary
TEMP	Red	Temperature Level	Flashes	Flash rate is dependent upon the temperature. Flashes faster in high temperature and slows as the temperature decreases.
LGHT	Red	Photocell Light Level	Flashes	Flash rate is dependent on the light level. Flashes faster in bright light and slows as darkness descends.
RUN	Red	Controller	Steady Flash	A steady flash indicates the controller is running correctly. Normal flash rate is about once a second.
PWR	Green	Power	Always On	Power to the data input circuit when lit.
RX1	Yellow	Com 1	Flashes	Turns on and flashes when receiving information.
RX2	Yellow	Com 2	Flashes	Turns on and flashes when receiving information, typically used in custom applications.

Complete the following steps to remove this circuit board from the display:

1. Disconnect power from J2.
2. Remove all power and signal connections from the board. “Locked” connectors are released by squeezing together the tabs, then carefully pulling them from the jack. When replacing the board, it may be helpful if the cables are labeled as to which cable was removed from which connector.
3. Remove each of the six screws holding the board in place.
4. Follow the previous steps in reverse order to install a new controller board.

If this board is being sent back to Daktronics keep any nuts, bolts or standoffs and immediately place the board in a static bag.

Modules and Drivers

In most instances, the module and driver board can be addressed as a single functional unit. Every module has a driver board mounted to its backside.

The LED power supplies are identified as assemblies (refer to **Power Supplies** on the following page). Each power supply controls two modules; a single power supply assembly (one power supply) controls two.

To remove a module, complete the following steps:

1. Locate the latch access fasteners on the module. One is centered below the top row of pixels and one is above the bottom row.
2. With a 1/8" T-handle Allen wrench, turn the latch access fasteners a quarter turn. The top one should be turned clockwise and the bottom one counter-clockwise.

3. Pull the module of the sign far enough to reach around the back and disconnect the ribbon cables.

When installing a module, reverse the previous steps and take note of the following points:

- The weather-stripping on the back edge of the module must be intact and in good condition if it is to prevent water from seeping into the sign.

- The module latches must be fully engaged to create a watertight seal around the edge of the module. The module should be firmly seated against the sign when the latches are fully engaged.

Each module assembly is made up of a module housing (containing LEDs and the pc board) and a louver assembly.

From time to time, it may become necessary to remove one or more parts from the module housing for repair or replacement. The following sub-sections explain how to disassemble a module.

Removing the Louver Assembly

Complete the following steps to remove the louver assembly from the face of the module:

1. Remove the five twist-on fasteners holding the louver assembly to the module, located on the rear of the module.
2. Lift the louver assembly straight away from the module.

Damaged louvers may reduce the brightness and contrast of this sign. If any of the louvers on the sign are broken or damaged, the entire louver assembly must be replaced. Refer to the **Replacement Parts List** in **Section 4.11**. When replacing the louver assembly take care not to strip the plastic twist-on fasteners.

Power Supplies

The LED power supplies are identified as assemblies earlier in the component location drawings. Each power supply controls two modules; a power supply assembly controls four.

Complete the following steps to remove a power supply from the sign:

1. Remove the module directly in front of the failed power supply.
2. Disconnect all the wires connected to the power supply.
3. Remove the hardware holding the power supply in place to free the unit.
   Follow these steps in reverse order to install a new power supply.

Light Detector

The light detector is internally mounted and wired at Daktronics. It is located in the bottom left corner on the front of the display (identified as assembly 0A-1215-4001 (LT)). A 4-conductor cable is used to connect the light detector to the controller board. The cable is terminated at the terminal block on the light sensor and at TB7 on the controller board (refer to **Figure 13** on **page 4-6**).

Light Detector Pin No.	Cable Wires Color	Controller Board Pin No.
1	Green	3
2	White	4
3	Red	1
4	Black	2
N.C.	Bare	2

4.5 Thermostats

A thermostat controls when the ventilation fans are turned on in the display and are located behind the second top module (A102).

4.6 Ventilation Systems (With Fans and Filters)

Ventilation fans should be checked after 1,500 hours of operation and every 1,500 hours after that to ensure the display is being cooled properly. Fans should be checked more often if the display is located in a dusty or harsh weather environment (i.e. along a gravel road with dust laden air).

- 1,500 hours is equivalent to 83 days if the display is operated for 18 hours a day and the power to the display is turned off when not in use.
- 1,500 hours is equivalent to 62 days if the display is running non-stop for 24 hours a day.

Attention: Power to the display should be shut off when the display is not in use. If the power is left on when the display is not operating, the filters will require cleaning or replacement more often, and electrical components will be exposed to excess condensation, which shortens their life.

Each time a module is removed, for whatever reason, take a minute to inspect the fans.

- Check the fan blades for dirt and debris. If the fan blades have a large accumulation of dirt and debris, this indicates that the filters must be changed more often. Fan blades must be kept clean to maintain fan efficiency and ensure proper cooling.
- Spin the fan blades with a pen or pencil to ensure that the bearings are free and the fan is still in balance.

To check the operation of the fans:

- Hold your hand or a piece of light paper beneath the sign to detect air movement. If the operation of a fan is questionable, a fan-testing power cord is available to check it.
- Plug the test cord into the fan and plug the other end into a 120-volt outlet.
- If the fan does not turn or does not operate smoothly, replace it.

Filters must be checked once a year or after every 1,500 hours of operation, whichever comes first.

Filters can be cleaned with water and a mild detergent, such as dish soap. Compressed air can also be

used to clean the filters provided the nozzle is held at least six inches away from the filter, the pressure is no greater than 60 psi and the air is blown through the filter in the opposite direction from which air normally flows. The arrow stamped on the frame filter indicates airflow direction.

4.7 Galaxy Display Maintenance

A yearly inspection should be completed to maintain safe and dependable sign operation. This inspection should address the following issues. **If any of the following conditions are noticed, action must be taken to correct the situation.**

- **Loose Hardware**
  Verify fasteners, such as bolts and rivets, have not come loose. Fasteners should be checked and tightened or replaced as required.

- **Excessive Dust Buildup**
  Occasionally it may be necessary to vacuum the inside of the sign cabinet to remove dust/dirt buildup that may interfere with airflow.

- **Water Intrusion – Water Stain Marks**
  Water can enter the sign where weather stripping has come loose or deteriorated or where fasteners have come loose allowing gaps in the panels or where moisture may be entering around hardware. Check electronic components for signs of corrosion.

- **Corrosion**
  Check the paint and look for possible corrosion, especially at footings, structural tie points and ground rods.

4.8 Weather Stripping

To ensure that the sign is waterproof, weather stripping has been provided around the entire sign and around each module. It is important that the weather stripping is installed properly at all times or water may leak into the sign and damage the components.

4.9 Troubleshooting

This sub-section contains some symptoms that may be encountered in the signs. This list does not include every possible symptom, but does represent common situations that may occur.

Symptom/Condition	Possible Cause/Remedy
One or more LEDs on a single module fail to light.	• Replace/check ribbon cables on the module. • Replace the module.
One or more LEDs on a single module fail to turn off.	• Replace/check ribbon cables on module. • Replace the module.
A section of the sign is not working. The section extends all the way to the right side of the sign.	• Check/Replace the ribbon cable. • Replace the first module/driver on the left side of the first module that is not working. • Replace the second module that is not working. • Replace the power supply assembly on the first module that is not working.
One row of modules does not work or is garbled.	• Check/Replace the ribbon cable. • Replace first module. • Replace controller. • Check the fuses in the power termination box.
A group of modules, which share the same power supply assembly, fail to work.	• Replace the power supply assembly.
Entire sign fails to work.	• Check for proper line voltage into the power termination panel. • Check/replace the signal cable to the controller. • Check/replace the ribbon cable from the controller to the modules. • Check the voltage settings on the power supplies. • Replace the controller. • Verify proper use of the software in the operation manual.
Temperature always reads 32 degrees F/0 degrees C.	• Check temperature sensor connections. • Replace the temperature sensor. • Replace the controller.
Sign is stuck on bright or dim.	• Check Manual/Auto dimming in Venus 1500 software. • Check light detector cable. • Check light detector for obstructions. • Replace the light detector. • Replace the controller.

4.10 Initial Operation Information

When first operated, the sign will run through an initialization in which it will display the following:

1. Output Test (DDDs)
2. Product Name (Galaxy)
3. Sign Size (Row x Column)
4. Firmware Number (**ED10134**)
5. Firmware Revision (Rev X.XX)
6. COM1 Configuration (C1: V15/RTD)
7. COM2 Configuration (C2: None)
8. Line Frequency (60 Hz)
9. Hardware Address (HW: XX)
10. Software Address (SW: XX)
11. Sign Name
12. Modem if Present (Modem)

4.11 Replacement Parts List

The following table contains some of the items that may need to be replaced in this sign over a period of time. Many of the parts within the sign also list their part numbers on labels affixed to them.

To prevent theft Daktronics recommends purchasing a lockable cabinet to store manuals and replacement/spare parts.

Part Description	Part Number
Controller II, 48x256, LED	0A-1146-0035
Red 20mm Module	0A-1266-2002
Amber 20mm Module	0A-1266-2003
Power Supply; 3 volt	0A-1289-4001
Power Supply; 3 volt	0A-1289-4002
Power Supply; 3 volt	0A-1289-4003
Power Supply; 3 volt	0A-1289-4004
Thermostat Enclosure	0A-1213-4024
Light Detector	0A-1215-4001
Cable; 40 POS 18"	W-1412
Cable; 40 POS 36"	W-1423
Cable; 18" RJ11 6 Cond	0A-1137-0160
Modem; 232, Coated	0P-1146-0003
Fiber	0P-1127-0024
TCP/IP	0A-1146-0063
RS232/422 Converter	0A-1127-0237
RS232/Fiber Converter	0A-1127-0239

4.12 Daktronics Exchange and Repair and Return Programs

To serve customers' repair and maintenance needs, Daktronics offers both an Exchange Program and a Repair and Return Program.

Daktronics' unique Exchange Program is a quick, economical service for replacing key components in need of repair. If a component fails, Daktronics sends the customer a replacement, and the customer, in turn, sends the failed component to Daktronics. This not only saves money but also decreases display downtime.

Daktronics provides these plans to ensure users get the most from their Daktronics products, and it offers the service to qualified customers who follow the program guidelines explained below. Please call the Help Desk – 877-605-1113 – if you have questions regarding the Exchange Program or any other Daktronics service.

When you call the Help Desk, a trained service technician will work with you to solve the equipment problem. You will work together to diagnose the problem and determine which replacement part to ship. If, after you make the exchange, the equipment still causes problems, please contact our Help Desk immediately.

If the replacement part fixes the problem, package the defective part in the same box and wrapping in which the replacement part arrived, fill out and attach the enclosed UPS shipping document, and **return the part to Daktronics**. In most circumstances, you will be invoiced for the replacement part at the time it is shipped. This bill, which represents the exchange price, is due when you receive it.

Daktronics expects immediate return of an exchange part if it does not solve the problem. The company also reserves the right to refuse equipment that has been damaged due to acts of nature or causes other than normal wear and tear.

If you do not ship the defective equipment Daktronics within 30 working days from the invoice date, Daktronics assumes you are purchasing the replacement part outright (with no exchange), and you will be invoiced for it. This second invoice represents the difference between the exchange price and the full purchase price of the equipment. The balance is due when you receive the second invoice. If you return the exchange equipment after 30 working days from the invoice date, you will be credited for the amount on the second invoice, minus a restocking fee. **To avoid a restocking charge, you must return the defective equipment within 30 days from the invoice date.**

Daktronics also offers a Repair and Return Program for items not subject to exchange.

Return Materials Authorization: To return parts for service, contact your local representative prior to shipment to acquire a Return Material Authorization (RMA) number. If you do not have a local representative, call the Daktronics Help Desk for the RMA. This expedites repair of your component when it arrives at Daktronics.

Packaging for Return: Package and pad the item well so that it will not be damaged in shipment. Electronic components such as printed circuit boards should be installed in an enclosure or placed in an antistatic bag before boxing. Please enclose your name, address, phone number and a clear description of symptoms.

This is how to reach us:

Mail: Customer Service, Daktronics Inc.
PO Box 5128
331 32nd Ave
Brookings SD 57006

Phone: Daktronics Help Desk: 877-605-1113 (toll free)
or 605-697-4034

Fax: 605-697-4444

E-mail: helpdesk@daktronics.com

Appendix A: Reference Drawings

Refer to **Section 1.1** for information on reading drawing numbers. The following drawings are listed by type of drawing and then by size of display.

Temp Sensor Mounting ..... **Drawing A-79767**
System Riser Diagram, Modem ..... **Drawing A-88426**
System Riser Diagram; Pwr & Sig V1500 Displays ..... **Drawing A-88427**
System Riser Diagram, RS422 ..... **Drawing A-92681**
System Riser Diagram, RS232 ..... **Drawing A-96058**
Power Termination Box Assembly ..... **Drawing A-99785**
System Riser Diagram; Fiber ..... **Drawing A-110559**
Power Termination Box ..... **Drawing A-129227**
Assy, Harn Phoenix Connector 6 Position to RJ/45 ..... **Drawing A-140596**
System Riser Diagram, RS422, Local Control ..... **Drawing A-160685**
V1500; TCP/IP (UDS-10) System Riser Diagram ..... **Drawing A-170417**
System Riser Diagram, LED Display, Fiber ..... **Drawing A-177569**

Schematic, AF-3050-16x64-R ..... **Drawing B-166368**
Schematic, AF-3050-16x80-20mm ..... **Drawing B-168173**
Schematic, AF-3050-16x96-20mm ..... **Drawing B-177974**
Schematic, AF-3050-16x112-20mm ..... **Drawing B-169469**
Schematic, AF-3050-16x224-20mm ..... **Drawing B-171246**
Schematic, AF-3050-16x448-20mm ..... **Drawing B-171256**
Schematic, AF-3050-32x64-6, R ..... **Drawing B-157299**
Schematic, AF-3050-32x80-20mm ..... **Drawing B-171415**
Schematic, AF-3050-32x96-A, Monochrome ..... **Drawing B-166161**
Schematic, AF-3050-32x96-20mm ..... **Drawing B-178860**
Schematic, AF-3050-32x112-6, RG ..... **Drawing B-162500**
Schematic; AE-3050-32120-2.1-R-DF ..... **Drawing B-129003**
Schematic, AF-3050-32x144-20mm ..... **Drawing B-174437**
Schematic, AF-3050-32x208-6, Monochrome ..... **Drawing B-160458**
Schematic, AF-3050-48x96-20mm ..... **Drawing B-173481**
Schematic, AF-3050-48x144-20mm ..... **Drawing B-174368**
Schematic, AF-3050-48x240-20mm ..... **Drawing B-177501**
Schematic, AF-3050-64x240-20mm ..... **Drawing B-171269**
Schematic; Power Supply Configurations ..... **Drawing A-126330**

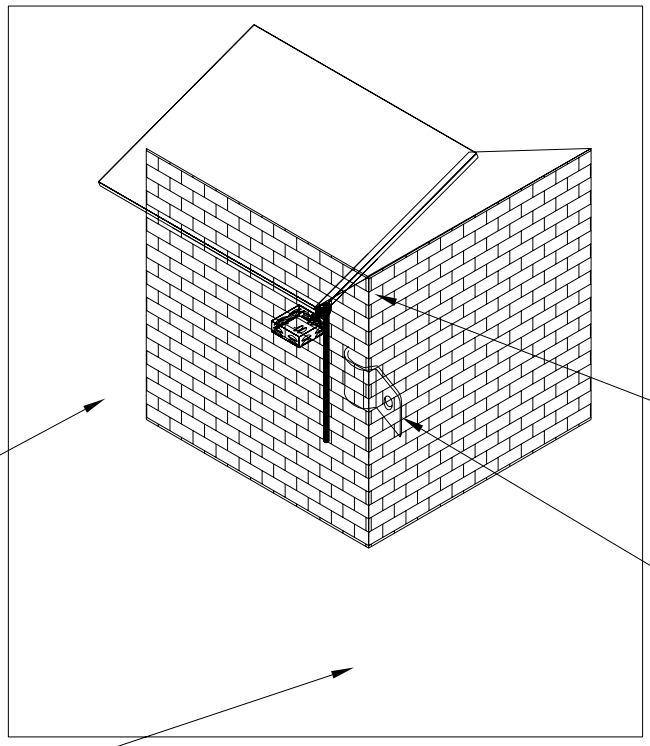
Comp. Layout Diagram, AF-3050-1664-20 ..... **Drawing A-179430**
Comp. Layout Diagram, AF-3050-1680-20 ..... **Drawing A-168206**
Comp. Layout Diagram, AF-3050-1696-20-R ..... **Drawing A-178829**
Comp. Layout Diagram, AF-3050-16112-20-R ..... **Drawing A-169016**
Comp. Layout Diagram, AF-3050-16224-20 ..... **Drawing A-171407**
Comp. Layout Diagram, AF-3050-16448-20 ..... **Drawing A-171433**
Component Layout Diagram, AF-3050-3264-23-R-WAL ..... **Drawing A-157311**
Comp, Layout Diagram, AF-3050-3280-20 ..... **Drawing A-176203**
Comp, Layout Diagram, AF-3050-3280-20 ..... **Drawing A-171113**
Comp. Layout Diagram, AF-3050-3296-20 ..... **Drawing A-178803**

Comp. Layout Diagram, AF-3050-32144-20-A ..... **Drawing A-174299**
Comp. Layout Diagram, AF-3050-32144-20..... **Drawing B-178219**
Comp. Layout Diagram, AF-3050-32208-23-A ..... **Drawing A-160769**
Comp. Layout Diagram, AF-3050-32208-23-A ..... **Drawing A-161368**
Comp. Layout Diagram, AF-3050-4896-20..... **Drawing A-173812**
Comp. Layout Diagram, AF-3050-48144-20..... **Drawing A-174010**
Comp. Layout Diagram, AF-48128-20..... **Drawing A-177539**
Comp. Layout Diagram, AF-3050-64240-20-A ..... **Drawing A-171408**
Comp. Layout Diagram ..... **Drawing A-166183**

Final Assembly, 16x16 MOD..... **Drawing B-154306**
F. Assy, AF-3050-1680-20 ..... **Drawing A-168205**
F. Assy, AF-3050-16112-20 ..... **Drawing A-169692**
F. Assy, AF-3050-3264-23-R ..... **Drawing A-157621**
F. Assy, AF-3050-3280-20-A..... **Drawing A-171523**
F. Assy, AF-3050-3296-23-A..... **Drawing A-166245**
Final Assy, AE-3050-32120-2.1, Straight Face..... **Drawing B-131889**
Final Assy, AE-3050-32120-2.1, Tilted Face ..... **Drawing B-132031**
Final Assy, AF-3050-32208-23..... **Drawing A-160728**
Final Assembly, 20mm Module ..... **Drawing B-158671**

Shop Drawing, AF-3050-1664-20-A ..... **Drawing B-179428**
Shop Drawing, AF-3050-1680-R ..... **Drawing B-173201**
Shop Drawing, AF-3050-1680-20-R ..... **Drawing B-179425**
Shop Drawing, AF-3050-1696-20-A ..... **Drawing B-176334**
Shop Drawing, AF-3050-16112-20-A ..... **Drawing B-172615**
Shop Drawing, AF-3050-16112-20..... **Drawing B-168885**
Shop Drawing, AF-3050-16224-20-A ..... **Drawing B-170473**
Shop Drawing, AF-3050-16448-20-A ..... **Drawing B-170481**
Shop Drawing, AF-3050-3264-6-R..... **Drawing B-147590**
Shop Drawing, AF-3050-32x80-20-A ..... **Drawing B-171057**
Shop Drawing, AF-3050-3280-20-R ..... **Drawing B-176284**
Shop Drawing, AF-3050-3296-23-A ..... **Drawing B-165852**
Shop Drawing, AF-3050-3296-20..... **Drawing B-176307**
Shop Drawing, AF-3050-32112-20..... **Drawing B-176400**
Shop Drawing, AF-3050-32144-20..... **Drawing B-176288**
Shop Drawing, AE-3050-32x120-2.1, DF ..... **Drawing B-113557**
Shop Drawing, AE-3050-32x120-2.1, DSLANT ..... **Drawing B-116640**
Shop Drawing, AF-3050-32144-20-A ..... **Drawing B-174520**
Shop Drawing, AF-3050-32208-6-A ..... **Drawing B-159062**
Shop Drawing, AF-3050-4896-20-A ..... **Drawing B-173749**
Shop Drawing, AF-3050-48144-20-A ..... **Drawing B-173823**
Shop Drawing, AF-3050-48240-20-A ..... **Drawing B-177427**
Shop Drawing, AF-3050-64240-20-A ..... **Drawing B-171101**

THERE SHOULD BE AT LEAST 1 FT BETWEEN THE BOTTOM OF THE EAVE AND THE TOP OF THE TEMP SENSOR HOUSING FOR ACCURATE READINGS.



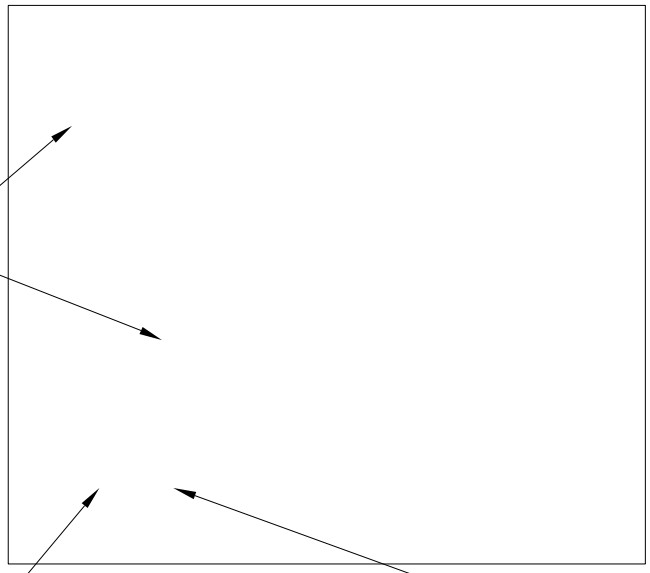
CONDUIT OUTLET BODY (SUPPLIED BY DAKTRONICS)

TEMP SENSOR HOUSING (SUPPLIED BY DAKTRONICS)

INSURE THAT CONDUIT IS SUPPORTED AT TOP END NEAR SENSOR.

1/2" CONDUIT (SUPPLIED BY CUSTOMER)

EAVE/WALL MOUNT



BOTTOM OF DISPLAY

1 FT OF 1/2" CONDUIT (SUPPLIED BY CUSTOMER)

MOUNTING TO THE TOP OF THE DISPLAY IS DONE IN THE SAME MANNER EXCEPT THE CONDUIT HAS TO BE 6 FT LONG.

TEMP SENSOR HOUSING (SUPPLIED BY DAKTRONICS)

CONDUIT OUTLET BODY (SUPPLIED BY DAKTRONICS)

MOUNTING TO BOTTOM OF DISPLAY

DAKTRONICS, INC. BROOKINGS, SD 57006

REV.	DATE	DESCRIPTION	BY	APPR.
2	27DEC99	CLEANED UP DRAWING.	NJA	
1	19AUG98	ADDED CONDUIT CLAMP FOR EAVE/WALL MOUNT	JRT	

PROJ:

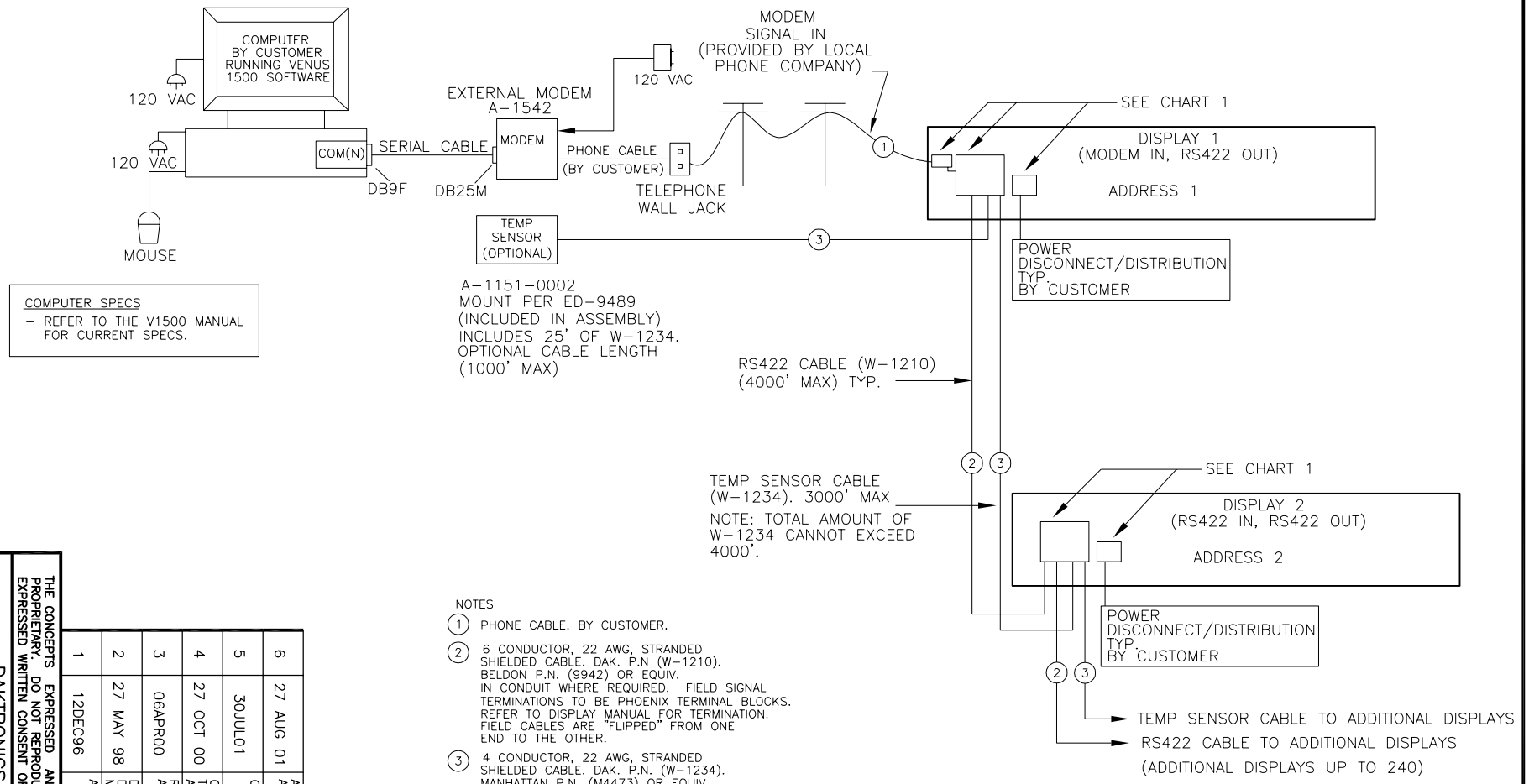
TITLE: TEMP SENSOR MOUNTING

DES. BY: DRAWN BY: NJA DATE: 20 MAR 96

REVISION APPR. BY:

SCALE: NONE

1151-R11A-79767



COMPUTER SPECS
- REFER TO THE V1500 MANUAL FOR CURRENT SPECS.

NOTES

1. PHONE CABLE. BY CUSTOMER.
2. 6 CONDUCTOR, 22 AWG, STRANDED SHIELDED CABLE. DAK. P.N (W-1210). BELDON P.N. (9942) OR EQUIV. IN CONDUIT WHERE REQUIRED. FIELD SIGNAL TERMINATIONS TO BE PHOENIX TERMINAL BLOCKS. REFER TO DISPLAY MANUAL FOR TERMINATION. FIELD CABLES ARE "FLIPPED" FROM ONE END TO THE OTHER.
3. 4 CONDUCTOR, 22 AWG, STRANDED SHIELDED CABLE. DAK. P.N. (W-1234). MANHATTAN P.N. (M4473) OR EQUIV. IN CONDUIT WHERE REQUIRED. FIELD SIGNAL TERMINATIONS TO BE PHOENIX TERMINAL BLOCKS. REFER TO DISPLAY MANUAL FOR TERMINATION. (OPTIONAL WITH TEMP SENSOR).
4. MODEM CONTROL EQUIPMENT KIT INCLUDES:
   W-1249.....SERIAL CABLE
   A-1542.....EXTERNAL MODEM
5. INPUT TO MODEM IS RS232.
6. ALL SIGNAL CABLES BY CUSTOMER. LABOR TO PULL CABLES BY CUSTOMER.
7. ALL POWER WIRES BY CUSTOMER. LABOR TO PULL WIRES BY CUSTOMER.
8. ALL WIRING TO MEET NEC AND LOCAL ELECTRICAL CODES. DISPLAYS MUST BE GROUNDED PER ARTICLE 250 AND 600 OF THE NATIONAL ELECTRICAL CODE.

DETAIL: A

FIELD CABLE	TB2 OF MODEM
COLOR	PIN
TIP	1
RING	2

TB2 MODEM

DETAIL: B

FIELD CABLE	J5(RJ11) OF MODEM
COLOR	PIN
TIP	3
RING	4

J5 MODEM

CHART 1

DISPLAY TYPE	POWER CONN. DWG.#	SIGNAL CONN. DWG.#	POWER SPEC. DWG.#
AF-3020	A-140262	A-88427	A-154944
X-1000	A-140262	A-88427	A-154944

REV.	DATE	DESCRIPTION	BY	APPR.
8	23 FEB 07	ADDED REFERENCE TO MANUALS AND DETAIL A & B. UPDATED CHART 1. REMOVED DB25F COM PORT REFERENCES	MLG	
7	06MAR02	ADDED AF-3080 AND AF-3090 TO CHART 1	TJN	

REVISION	DES. BY: JCOOK	DRAWN BY: AMEYER	DATE: 21NOV96
08	APPR. BY:	SCALE: NONE	1137-R01A-88426

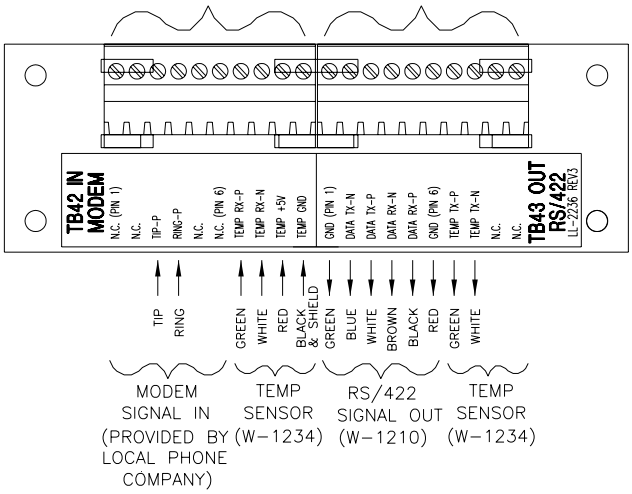
	DESCRIPTION	DATE	BY
1	12DEC96	JHC	
2	27 MAY 98	DELETED ED'S FROM LIST OF PART NO'S DELETED G-1000 FROM DISPLAYS & TITLE BLOCK MOVED TERM PANELS TO LOWER LEFT CORNER ADDED NOTES FOR ADDITIONAL DISPLAY WIRING	JEM
3	06APR00	REPLACED ENTIRE DRAWING TO INCLUDE ALL OUTDOOR DISPLAYS.	LLK
4	27 OCT 00	CHANGED POWER CONN. DWG# FROM B-98318 TO A-140262. ADDED DISTRIBUTION TO DISCONNECT/DISTRIBUTION	LMH
5	30JUL01	CHANGED TEMP SENSOR TO OPTIONAL	LLK
6	27 AUG 01	ADDED DRAWINGS, AF-3060-RG, AND AF-3065 TO CHART 1.	DJM

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: OUTDOOR LED PRODUCT LINE

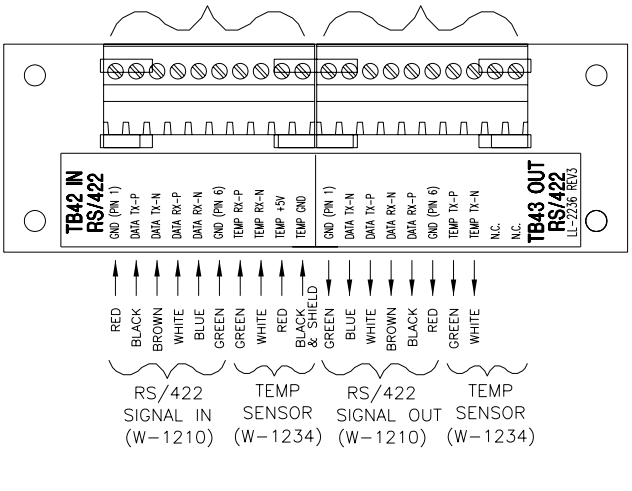
TITLE: SYSTEM RISER DIAGRAM, MODEM

MODEM SIGNAL CONNECTIONS



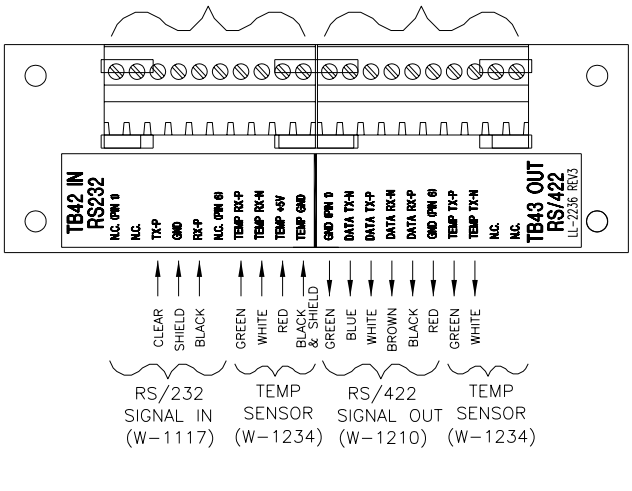
DETAIL F
SIGNAL CONNECTIONS

RS/422 SIGNAL CONNECTIONS



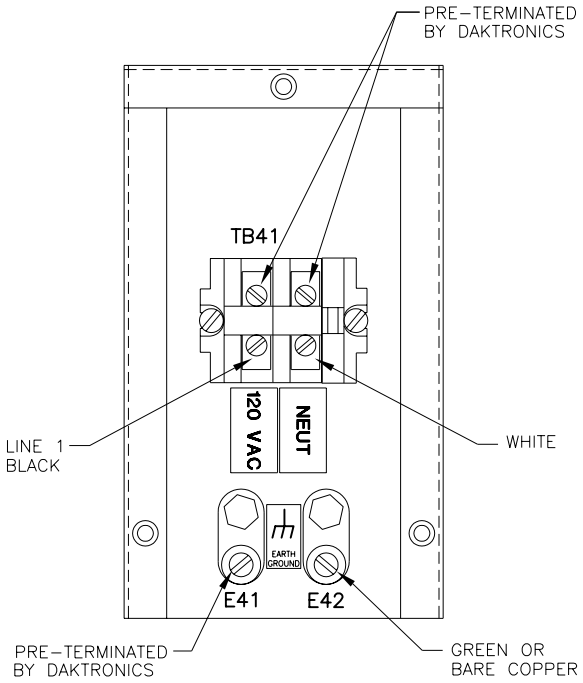
DETAIL D
SIGNAL CONNECTIONS

RS/232 SIGNAL CONNECTIONS



DETAIL G
SIGNAL CONNECTIONS

"ONLY USED IN G-1000 DISPLAYS"



DETAIL E
POWER CONNECTIONS

** REFER TO DWG 1137-R01A-88425 FOR COMPLETE RS/422 SYSTEM RISER DIAGRAM

** REFER TO DWG 1137-R01A-88426 FOR COMPLETE MODEM SYSTEM RISER DIAGRAM

REV.	DATE	DESCRIPTION	BY	APPR.
3	13NOV01	ADDED "G-1000 ONLY" NOTE TO DETAIL E	LLK	LLK
2	28 MAY 98	REPLACED G1000 WITH V1500 IN TITLE BLOCK	JEM	RK
1	2 SEPT 97	ADDED DETAIL G. UPDATED RS/232 LABEL AND REARRANGED DRAWING.	CI	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: OUTDOOR LED PRODUCT LINE

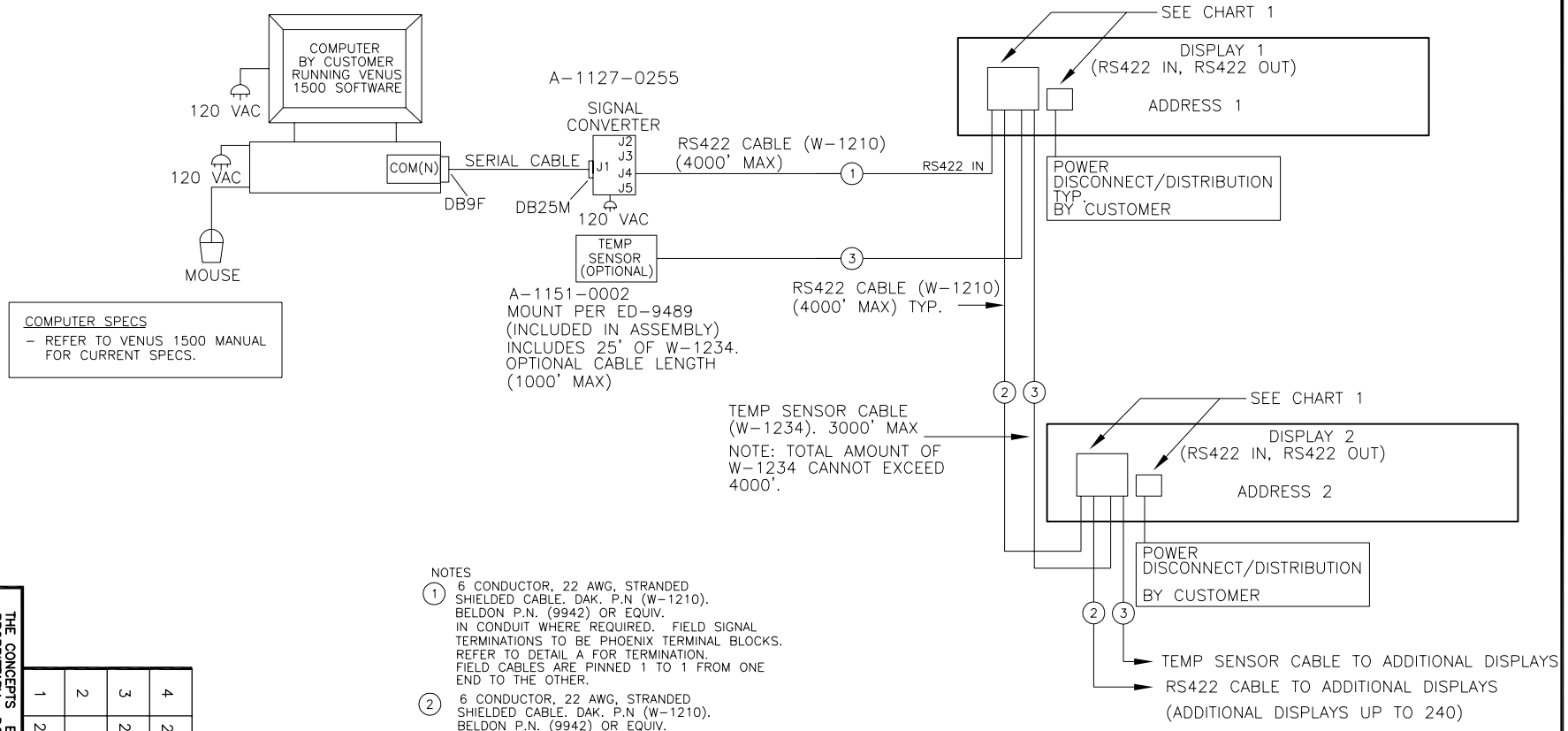
TITLE: SYSTEM RISER DIAGRAM; PWR & SIG V1500 DISPLAYS

DES. BY: JCOOK DRAWN BY: AMEYER DATE: 21NOV96

REVISION APPR. BY:

SCALE: NONE

1137-R01A-88427



NOTES

1. 6 CONDUCTOR, 22 AWG, STRANDED SHIELDED CABLE. DAK. P.N (W-1210). BELDON P.N. (9942) OR EQUIV. IN CONDUIT WHERE REQUIRED. FIELD SIGNAL TERMINATIONS TO BE PHOENIX TERMINAL BLOCKS. REFER TO DETAIL A FOR TERMINATION. FIELD CABLES ARE PINNED 1 TO 1 FROM ONE END TO THE OTHER.
2. 6 CONDUCTOR, 22 AWG, STRANDED SHIELDED CABLE. DAK. P.N (W-1210). BELDON P.N. (9942) OR EQUIV. IN CONDUIT WHERE REQUIRED. FIELD SIGNAL TERMINATIONS TO BE PHOENIX TERMINAL BLOCKS. REFER TO DISPLAY MANUAL FOR TERMINATION. FIELD CABLES ARE "FLIPPED" FROM ONE END TO THE OTHER.
3. 4 CONDUCTOR, 22 AWG, STRANDED SHIELDED CABLE. DAK. P.N. (W-1234). MANHATTAN P.N. (M4473) OR EQUIV. IN CONDUIT WHERE REQUIRED. FIELD SIGNAL TERMINATIONS TO BE PHOENIX TERMINAL BLOCKS. REFER TO DISPLAY MANUAL FOR TERMINATION.
4. RS/422 CONTROL EQUIPMENT KIT INCLUDES:
   W-1249.....SERIAL CABLE
   A-1127-0255.....SIGNAL CONVERTER
6. INPUT TO CONVERTER IS RS232, OUTPUTS RS422.
7. ALL SIGNAL CABLES BY CUSTOMER. LABOR TO PULL CABLES BY CUSTOMER.
8. ALL POWER WIRES BY CUSTOMER. LABOR TO PULL WIRES BY CUSTOMER.
9. ALL WIRING TO MEET NEC AND LOCAL ELECTRICAL CODES. DISPLAYS MUST BE GROUNDED PER ARTICLE 250 AND 600 OF THE NATIONAL ELECTRICAL CODE.

DETAIL: A

SIGNAL CONVERTER J4 OR J5 PIN	SIGNAL CONVERTER FIELD CABLE COLOR	TERMINAL BLOCK TB42 OF DISPLAY PIN
1	RED	1
2	BLK	2
3	BRO	3
4	WHT	4
5	BLU	5
6	GRN	6
	SHIELD	N.C

CHART 1

DISPLAY TYPE	POWER CONN. DWG.#	SIGNAL CONN. DWG.#	POWER SPEC. DWG.#
AF-3020	A-140262	A-88427	A-154944
X-1000	A-140262	A-88427	A-154944

REV.	DATE	DESCRIPTION	BY	APPR.
7	23 FEB 07	UPDATED CHART 1. REMOVED DB25F COM PORT REFERANCES & A-1127-0237 SIGNAL CONVERTER	MLG	
6	26 MAR 04	REPLACED 0A-1127-0237 WITH 0A-1127-0255 (INCLUDES SURGE PROTECTION)	SAI	DJM
5	06MAR02	ADDED AF-3080 AND AF-3090 TO CHART 1	TJN	
4	27 AUG 01	REVISED COMPUTER SPEC BOX. ADDED DRAWINGS, AF-3060-RG, AND AF-3065 TO CHART 1.	DJM	
3	27 OCT 00	CHANGED POWER CONN. DWG# FROM B-98318 TO A-140262. ADDED DISTRIBUTION TO DISCONNECT/DISTRIBUTION	LMH	
2	06APR00	REPLACED ENTIRE DRAWING TO INCLUDE ALL OUTDOOR DISPLAYS	LLK	
1	27 MAY 98	DELETED ED'S FROM LIST OF PART NO.'S DELETED G-1000 FROM DISPLAYS MOVED TERM PANELS TO LOWER LEFT CORNER	JEM	RK

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: OUTDOOR LED PRODUCT LINE

TITLE: SYSTEM RISER DIAGRAM, RS422

DES. BY: JCOOK DRAWN BY: AMEYER DATE: 30APR97

APPR. BY:

SCALE: NONE

REVISION 07

1137-R01A-92681

REV.	DATE	DESCRIPTION	BY	APPR.
6	23 FEB 07	UPDATED CHART 1. ADDED MANUAL REFERENCES. REMOVED DB25F COM PORT REFERENCES.	MLG	
5	06 MAR 02	ADDED AF-3080 AND AF-3090 TO CHART 1	TJN	
4	27 AUG 01	REVISED COMPUTER SPEC BOX, ADDED DRAWINGS, AF-3060-RG, AND AF-3065 TO CHART 1.	DJM	
3	27 OCT 00	CHANGED POWER CONN. DWG# FROM B-98318 TO A-140262 ADDED DISTRIBUTION TO DISCONNECT/DISTRIBUTION	LMH	
2	06APR00	REPLACED ENTIRE DRAWING TO INCLUDE ALL OUTDOOR DISPLAYS.	LLK	
1	27 MAY 98	DELETED ED'S FROM LIST OF PART NO.'S DELETED G-1000 FROM DISPLAYS & TITLE MOVED TERM PANELS TO LOWER LEFT CORNER	JEM	RK

DETAIL A

NOTES

1. 2 CONDUCTOR, 18 AWG, STRANDED SHIELDED CABLE. DAK. P.N. (W-1117). BELDON P.N. (8760) OR EQUIV.
2. 6 CONDUCTOR, 22 AWG, STRANDED SHIELDED CABLE. DAK. P.N (W-1210). BELDON P.N. (9942) OR EQUIV. IN CONDUIT WHERE REQUIRED. FIELD SIGNAL TERMINATIONS TO BE PHOENIX TERMINAL BLOCKS. REFER TO DISPLAY MANUAL FOR TERMINATION. FIELD CABLES ARE "FLIPPED" FROM ONE END TO THE OTHER.
3. 4 CONDUCTOR, 22 AWG, STRANDED SHIELDED CABLE. DAK. P.N. (W-1234). MANHATTAN P.N. (M4473) OR EQUIV. IN CONDUIT WHERE REQUIRED. FIELD SIGNAL TERMINATIONS TO BE PHOENIX TERMINAL BLOCKS. REFER TO DISPLAY MANUAL FOR TERMINATION.
4. RS/232 CONTROL EQUIPMENT KIT INCLUDES:
   W-1249.....SERIAL CABLE
   A-1103-0010.....J-BOX
6. INPUT TO J-BOX IS RS232, OUTPUT IS RS232.
7. ALL SIGNAL CABLES BY CUSTOMER. LABOR TO PULL CABLES BY CUSTOMER.
8. ALL POWER WIRES BY CUSTOMER. LABOR TO PULL WIRES BY CUSTOMER.
9. ALL WIRING TO MEET NEC AND LOCAL ELECTRICAL CODES. DISPLAYS MUST BE GROUNDED PER ARTICLE 250 AND 600 OF THE NATIONAL ELECTRICAL CODE.

CHART 1

DISPLAY TYPE	POWER CONN. DWG.#	SIGNAL CONN. DWG.#	POWER SPEC. DWG.#
AF-3020	A-140262	A-88427	A-154944
X-1000	A-140262	A-88427	A-154944

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: OUTDOOR LED PRODUCT LINE

TITLE: SYSTEM RISER DIAGRAM, RS232

DES. BY:

DRAWN BY: CIVERSEN

DATE: 28 AUG 97

APPR. BY:

SCALE: NONE

REVISION 06

1137-R01A-96058

ASSY NO.	VOLTAGE	TRANSFORMER	FUSE	CAUTION LABEL
A-1193-0002	120V	T-1072	F-1031	LL-1064
A-1193-0003	240V	T-1106	F-1043	LL-1882

EXCEPT WHERE NOTED, INSERT ALL NUTSERTS FROM THE FRONT SIDE.

ASSEMBLY VIEW

COVER REMOVED

ASSEMBLY VIEW

REV.	DATE	DESCRIPTION	BY	APPR.
4	19FEB01	CHANGED TO ADD 2 HEYCOS ON BOTTOM OF SIDES. MOVED FILTER PER ECO 28422.	DJD	
3	14OCT98	CHANGED HC-1034 FOR GROUND LUGS TO HC-1043.	DJD	
2	15JUN98	ADDED HC-1149 WASHER @2. MADE GENERAL FOR BOTH 120V AND 240V BOXES.	JCH	
1	13FEB98	ADDED NOTE ABOUT INSERTING NUTSERTS AND MOVED FILTER.	DJD	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: OUTDOOR GALAXY DISPLAYS

TITLE: POWER TERMINATION BOX ASSEMBLY

DES. BY: DDAGGITT DRAWN BY: DDAGGITT DATE: 19JAN98

APPR. BY:

SCALE: 1=3

REVISION

1185-E10A-99785

COMPUTER SPECS
- REFER TO VENUS 1500 MANUAL FOR CURRENT SPECS.

NOTES

1. 4 FIBER CABLE, 62.5/125 GRADE DAK. P.N. (W-1376). GRAYBAR P.N. (BX04080D-W3SB1UC900R) IN CONDUIT WHERE REQUIRED. REFER TO DETAIL A AND THE DISPLAY MANUAL FOR CONNECTIONS.
2. 6 CONDUCTOR, 22 AWG, STRANDED SHIELDED CABLE. DAK. P.N (W-1210). BELDON P.N. (9942) OR EQUIV. IN CONDUIT WHERE REQUIRED. FIELD SIGNAL TERMINATIONS TO BE PHOENIX TERMINAL BLOCKS. REFER TO DISPLAY MANUAL FOR TERMINATION. FIELD CABLES ARE "FLIPPED" FROM ONE END TO THE OTHER.
3. 4 CONDUCTOR, 22 AWG, STRANDED SHIELDED CABLE. DAK. P.N. (W-1234). MANHATTAN P.N. (M4473) OR EQUIV. IN CONDUIT WHERE REQUIRED. FIELD SIGNAL TERMINATIONS TO BE PHOENIX TERMINAL BLOCKS. REFER TO DISPLAY MANUAL FOR TERMINATION.
4. FIBER CONTROL EQUIPMENT KIT INCLUDES:
   W-1249.....SERIAL CABLE
   A-1127-0256.....SIGNAL CONVERTER
5. INPUT TO CONVERTER IS RS232.
6. ALL SIGNAL CABLES BY CUSTOMER. LABOR TO PULL CABLES BY CUSTOMER.
7. ALL POWER WIRES BY CUSTOMER. LABOR TO PULL WIRES BY CUSTOMER.
8. ALL WIRING TO MEET NEC AND LOCAL ELECTRICAL CODES. DISPLAYS MUST BE GROUNDED PER ARTICLE 250 AND 600 OF THE NATIONAL ELECTRICAL CODE.
9. DISPLAY OUTPUTS CAN BE EITHER FIBER OR RS422.

DETAIL: A

COMPUTER	SIGNAL CONVERTR	FIELD CABLE	FIBER BOARD	DISPLAY
	PIN		PIN	
	J2(TX)		J5(RX)	
	J3(RX)		J4(TX)	

CHART 1

DISPLAY TYPE	POWER CONN. DWG.#	SIGNAL CONN. DWG.#	POWER SPEC. DWG.#
AF-3020	A-140262	A-88427	A-154944
X-1000	A-140262	A-88427	A-154944

REV.	DATE	DESCRIPTION	BY	APPR.
7	23 FEB 07	UPDATED CHART 1. REMOVED DB25F COM PORT REFERENCES & A-1127-0239 SIGN CONVERTER ADDED MANUAL REFERENCES AND DETAIL A.	MLG	
6	26 MAR 04	REPLACED 0A-1127-0239 WITH 0A-1127-0256 (INCLUDES SURGE PROTECTION)	SAI	DJM
5	06MAR02	ADDED AF-3080 AND AF-3090 TO CHART 1	TJN	

REVISION	DES. BY:	DRAWN BY:	DATE:
4	27 AUG 01	REVISED COMPUTER SPEC BOX AND ADDED DRAWINGS, AF-3060-RG, AF-3065 TO CHART 1.	DJM	
3	27 OCT 00	CHANGED POWER CONN. DWG# FROM B-98318 TO A-140262. ADDED DISTRIBUTION TO DISCONNECT/DISTRIBUTION	LMH	
2	06APR00	REPLACED ENTIRE DRAWING TO INCLUDE ALL OUTDOOR DISPLAYS.	LLK	
1	20JAN99	REVISED FIBER CABLE LENGTH FROM 3000' MAX TO 2000' MAX.	LLK	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: OUTDOOR LED PRODUCT LINE

TITLE: SYSTEM RISER DIAGRAM, FIBER

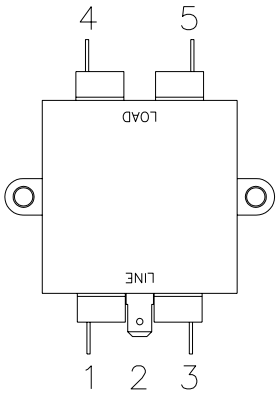
DES. BY: DRAWN BY: LKERR DATE: 29DEC98

APPR. BY:

SCALE: NONE

REVISION 07

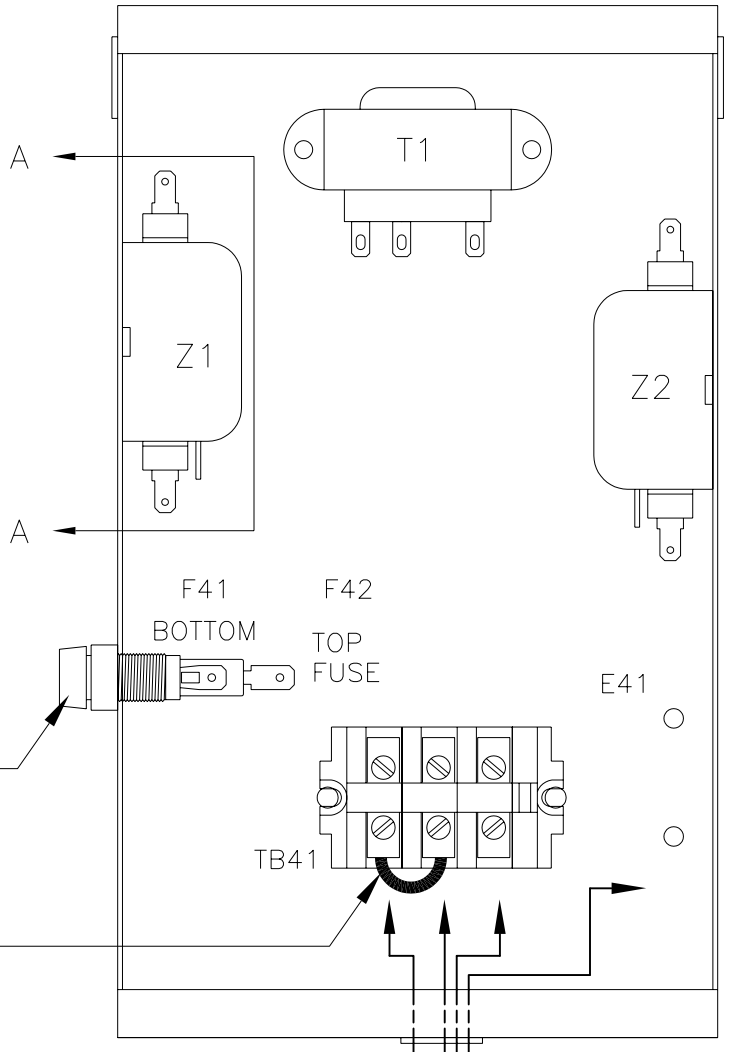
1137-R01A-110559



SECTION: A–A

SCALE 1=2

Z1/Z2 PIN OUT



REPLACE FUSES WITH THE SAME TYPE AND RATING. SEE BELOW.

SHORTING JUMPER (REMOVE IF TWO LINES ARE TERMINATED)

120 or 240 VAC (2 Wire) TB41–1&2 Jumpered

120/240V (3 Wire)

LINE 1

LINE 2

NEUTRAL (COMMON)

EARTH GROUND

FRONT VIEW

COVER REMOVED

FUSE REPLACEMENT INFORMATION

Voltage	Fuse Type	Daktronics part no.
120VAC	MWO–15	F–1028
120/240VAC	MWO–15	F–1028
240VAC	MDL–7	F–1031

REV.	DATE	DESCRIPTION	BY	APPR.
01	30OCT01	REPLACED E–1001 @2 WITH TB–1037.	MDM	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: GALAXY, LOUVERED, VENUS 1500, 34MM

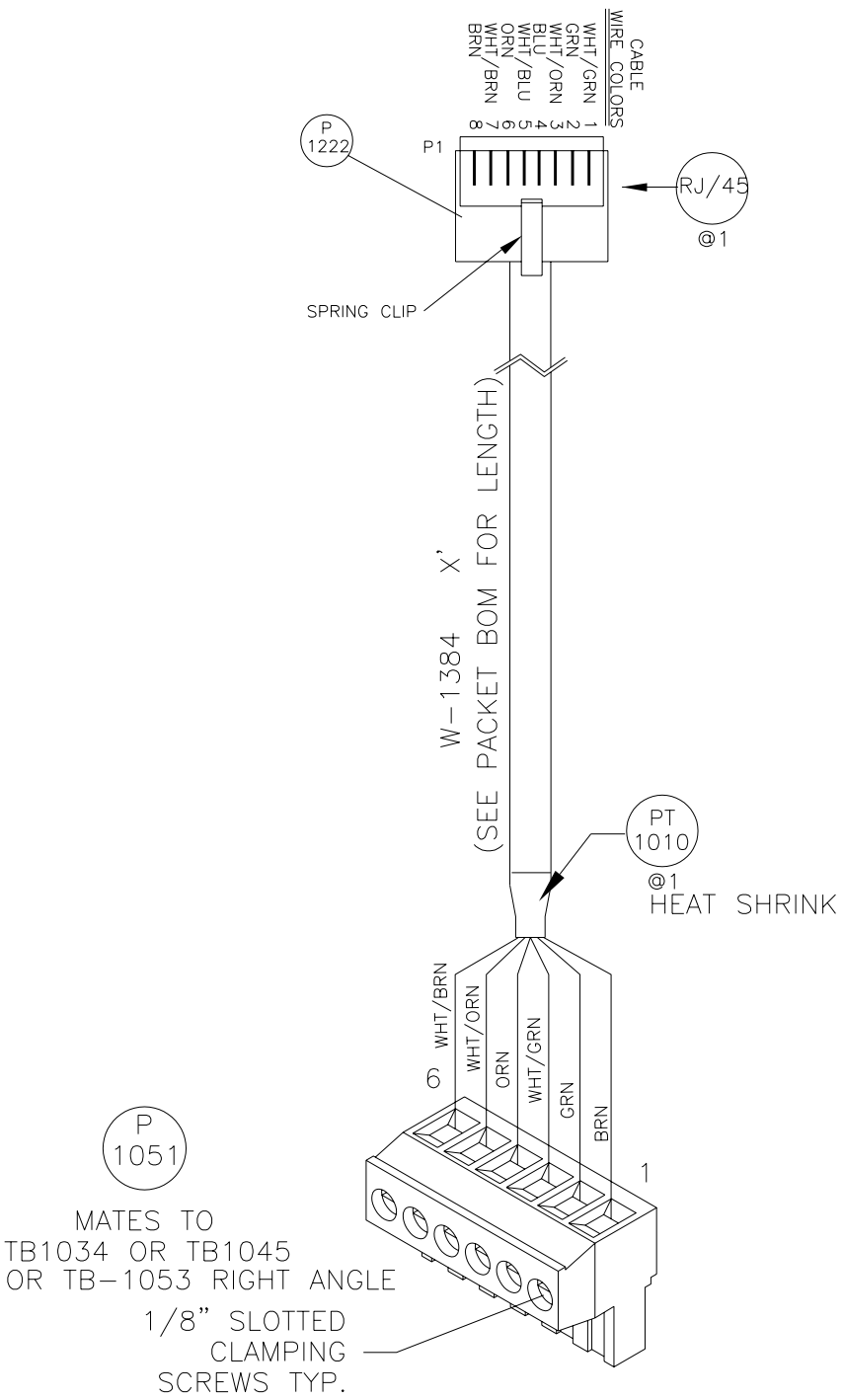
TITLE: POWER TERMINATION BOX

DES. BY: MMAMENGA DRAWN BY: KERR/WOODARD DATE: 10MAR00

REVISION APPR. BY:

SCALE: 1=2

1215-R04A-129227



REV.	DATE	DESCRIPTION	BY	APPR.
01	19APR01	REMOVED 25' LENGTH REQUIREMENT	LLK	LLK

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

TITLE: ASSY, HARN PHOENIX CONNECTOR 6 POSITION TO RJ/45

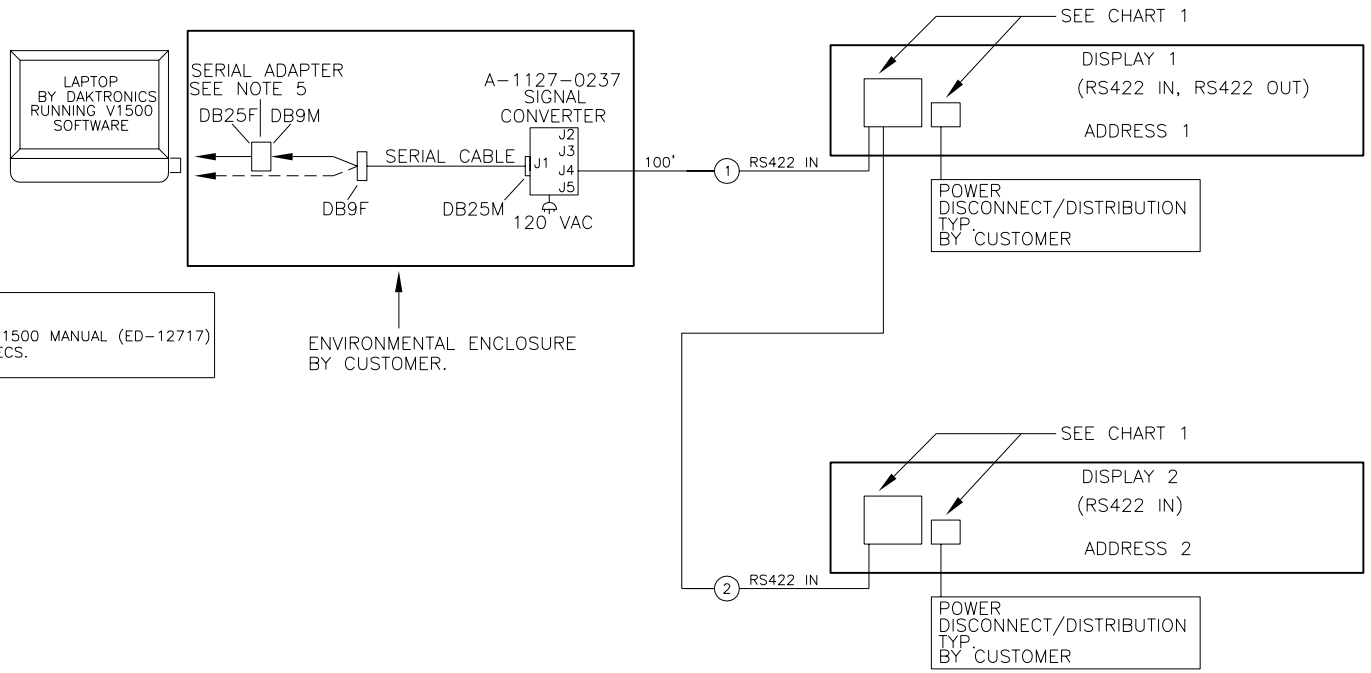
DES. BY: DRAWN BY: LHARTE DATE: 01 NOV 00

REVISION APPR. BY:

SCALE: 1=1

1146-E10A-140596

REV.	DATE	DESCRIPTION	BY	APPR.
01	04JAN02	REMOVED ONE SIGNAL CONVERTER AND ASSOCIATED COMPONENTS.	LLK	



NOTES

(1) 6 CONDUCTOR, 22 AWG, STRANDED SHIELDED CABLE. DAK. P.N (W-1210). BELDON P.N. (9942) OR EQUIV. IN CONDUIT WHERE REQUIRED. FIELD SIGNAL TERMINATIONS TO BE PHOENIX TERMINAL BLOCKS. FIELD CABLES ARE PINNED 1 TO 1 FROM ONE END TO THE OTHER.

(2) 6 CONDUCTOR, 22 AWG, STRANDED SHIELDED CABLE. DAK. P.N (W-1210). BELDON P.N. (9942) OR EQUIV. IN CONDUIT WHERE REQUIRED. 1000 FT MAX. FIELD SIGNAL TERMINATIONS TO BE PHOENIX TERMINAL BLOCKS. FIELD CABLES ARE "FLIPPED" FROM ONE END TO THE OTHER.

3. ENVIRONMENTAL ENCLOSURE TO INCLUDE 120VAC OUTLET (BY CUSTOMER) FOR SIGNAL CONVERTER.

4. RS/422 CONTROL EQUIPMENT KIT INCLUDES:
   W-1249.....SERIAL CABLE
   A-1603.....DB9 TO DB25 ADAPTER
   A-1127-0237.....SIGNAL CONVERTER
   A-1146-0005.....NETWORK/CABLE TESTER
5. USE EITHER THE DB9 OR DB25, DEPENDING ON YOUR PC'S REQUIREMENTS.
6. INPUT TO CONVERTER IS RS232, OUTPUT IS RS232.
7. ALL SIGNAL CABLES BY DAKTRONICS. LABOR TO PULL CABLES BY CUSTOMER.
8. ALL POWER WIRES BY CUSTOMER. LABOR TO PULL WIRES BY CUSTOMER.
9. ALL WIRING TO MEET NEC AND LOCAL ELECTRICAL CODES. DISPLAYS MUST BE GROUNDED PER ARTICLE 250 AND 600 OF THE NATIONAL ELECTRICAL CODE.

CHART 1

DISPLAY TYPE	POWER CONN. DWG.#	SIGNAL CONN. DWG.#	POWER SPEC. DWG.#	SCHEMATIC DWG.#
AF-3050-MONO A	A-129227	A-129110	B-159062	B-160458

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: NEWARK INTERNATIONAL AIRPORT

TITLE: SYSTEM RISER DIAGRAM, RS422, LOCAL CONTROL

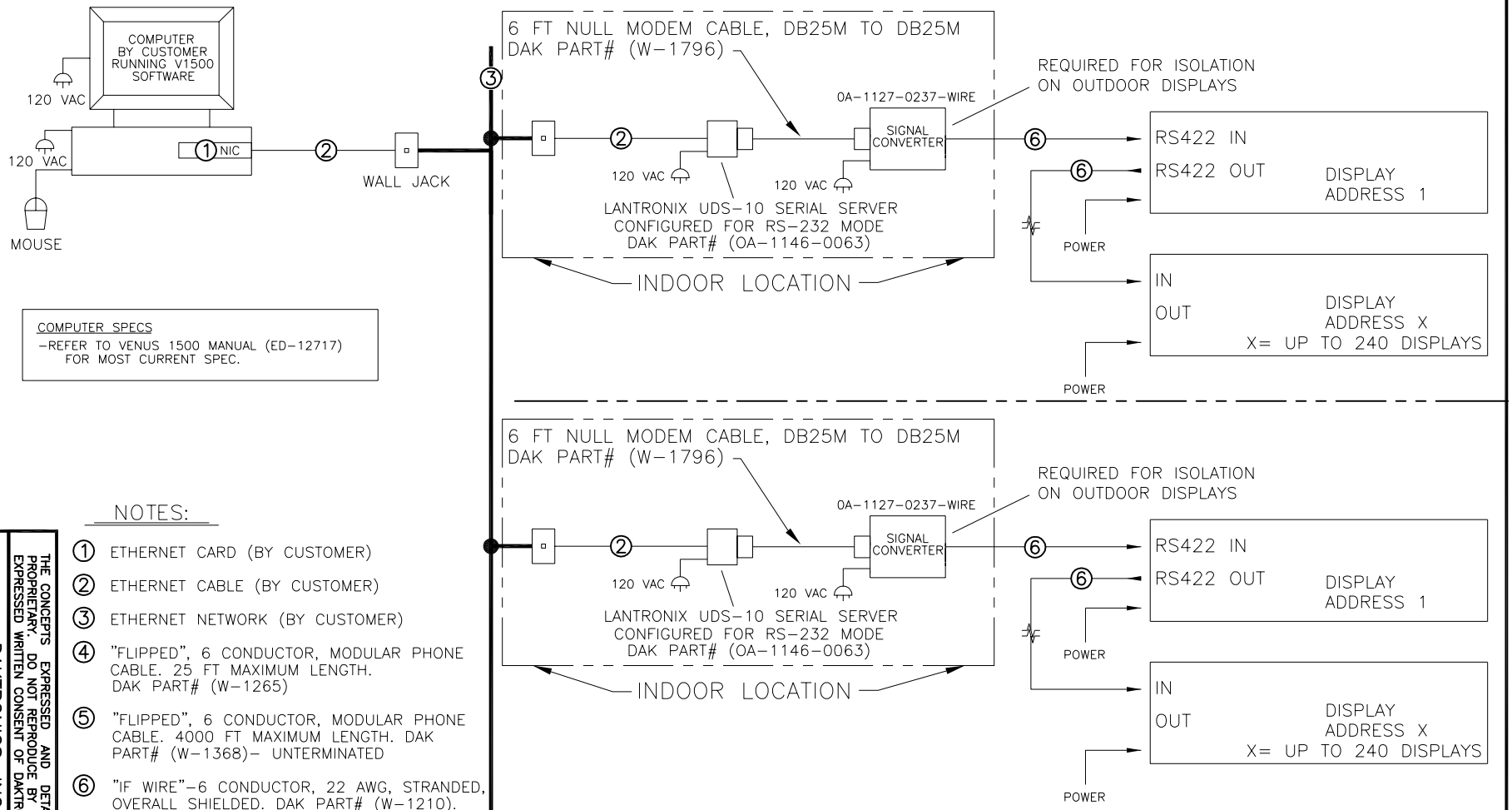
DES. BY: DRAWN BY: LKERR DATE: 28DEC01

APPR. BY:

SCALE: NONE

REVISION

9881-R01A-160685



COMPUTER SPECS
-REFER TO VENUS 1500 MANUAL (ED-12717) FOR MOST CURRENT SPEC.

NOTES:

1. ETHERNET CARD (BY CUSTOMER)
2. ETHERNET CABLE (BY CUSTOMER)
3. ETHERNET NETWORK (BY CUSTOMER)
4. "FLIPPED", 6 CONDUCTOR, MODULAR PHONE CABLE. 25 FT MAXIMUM LENGTH. DAK PART# (W-1265)
5. "FLIPPED", 6 CONDUCTOR, MODULAR PHONE CABLE. 4000 FT MAXIMUM LENGTH. DAK PART# (W-1368)- UNTERMINATED
6. "IF WIRE"-6 CONDUCTOR, 22 AWG, STRANDED, OVERALL SHIELDED. DAK PART# (W-1210). "IF FIBER"-4 STRAND FIBER, 62.5/125 GRADE DAK PART (W-1376)- UNTERMINATED

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CALGARY AIRPORT AUTHORITY

TITLE: V1500; TCP/IP (UDS-10) SYSTEM RISER DIAGRAM

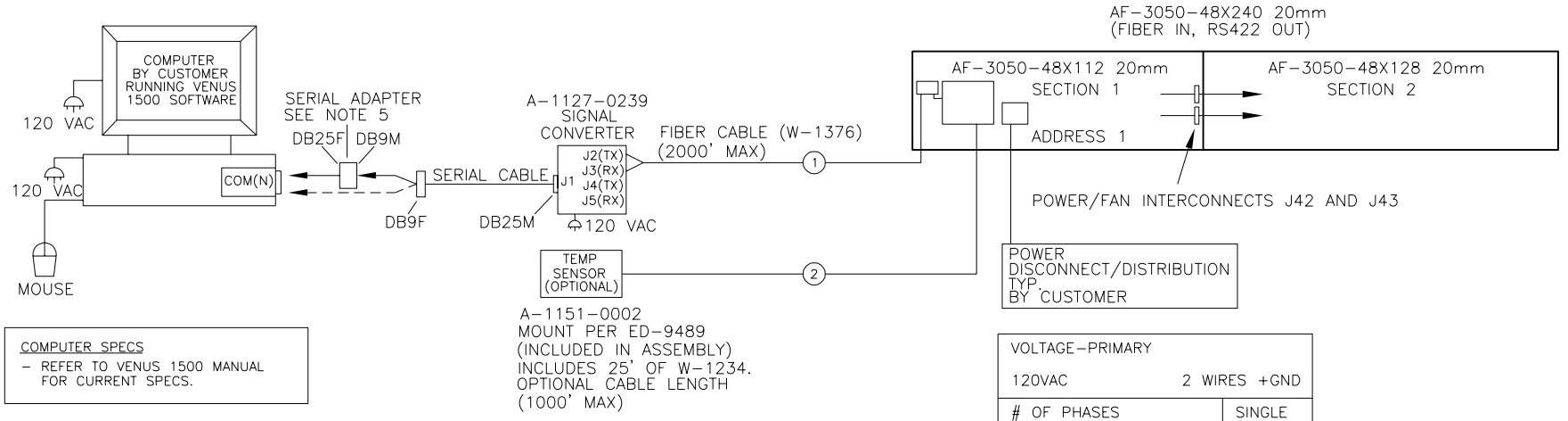
DES. BY: AKLUCK DRAWN BY: LKERR DATE: 01JUL02

APPR. BY:

SCALE: NONE

10162-R01A-170417

REV.	DATE	DESCRIPTION	BY	APPR.
REVISION				



COMPUTER SPECS
- REFER TO VENUS 1500 MANUAL FOR CURRENT SPECS.

A-1151-0002
MOUNT PER ED-9489
(INCLUDED IN ASSEMBLY)
INCLUDES 25' OF W-1234.
OPTIONAL CABLE LENGTH
(1000' MAX)

VOLTAGE-PRIMARY	
120VAC	2 WIRES +GND
# OF PHASES	SINGLE
AMPERES PER LINE	13.6
MAXIMUM WATTS	1630
VOLTAGE-SECONDARY	3.6VDC

NOTES

(1) 4 FIBER CABLE, 62.5/125 GRADE
DAK. P.N. (W-1376).
GRAYBAR P.N. (BX04080D-W3SB1UC900R)
IN CONDUIT WHERE REQUIRED.

(2) 4 CONDUCTOR, 22 AWG, STRANDED
SHIELDED CABLE. DAK. P.N. (W-1234).
MANHATTAN P.N. (M4473) OR EQUIV.
IN CONDUIT WHERE REQUIRED.
FIELD SIGNAL TERMINATIONS TO BE PHOENIX
TERMINAL BLOCKS.

(3) N/A

4. FIBER CONTROL EQUIPMENT KIT INCLUDES:
W-1249.....SERIAL CABLE
A-1603.....DB9 TO DB25 ADAPTER
A-1127-0239.....SIGNAL CONVERTER
A-1146-0005.....NETWORK/CABLE TESTER
5. USE EITHER THE DB9 OR DB25, DEPENDING ON YOUR PC'S REQUIREMENTS.
6. INPUT TO CONVERTER IS RS232.
7. ALL SIGNAL CABLES BY CUSTOMER. LABOR TO PULL CABLES BY CUSTOMER.
8. ALL POWER WIRES BY CUSTOMER. LABOR TO PULL WIRES BY CUSTOMER.
9. ALL WIRING TO MEET NEC AND LOCAL ELECTRICAL CODES.
DISPLAYS MUST BE GROUNDED PER ARTICLE 250 AND 600 OF THE NATIONAL ELECTRICAL CODE.

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: WESTCHESTER COUNTY AIRPORT

TITLE: SYSTEM RISER DIAGRAM, FIBER

DES. BY: DRAWN BY: LKERR DATE: 28OCT02

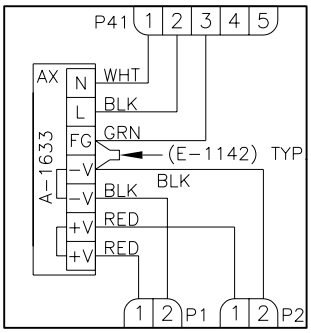
APPR. BY:

SCALE: NONE

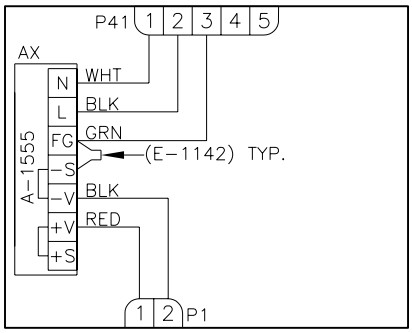
REVISION

10374-R01A-177569

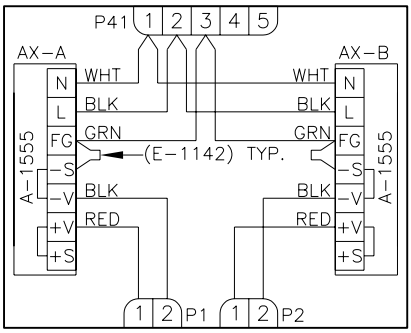
9VDC VERSION
0A-1213-2039, **0A-1327-0099**
(SET POWER SUPPLIES TO 9.0VDC)



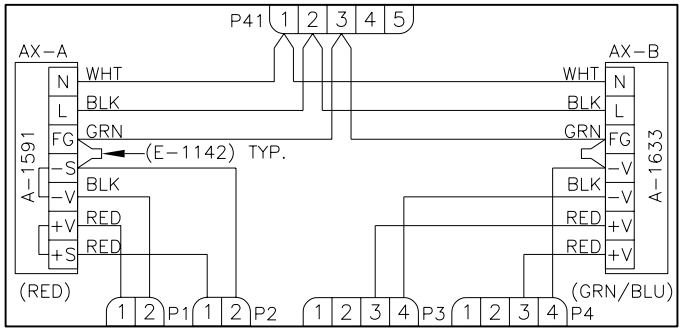
12VDC VERSION (SINGLE)
0A-1213-2011, **0A-1327-0097**
(SET POWER SUPPLIES TO 11.0VDC)



12VDC VERSION (DUAL)
0A-1213-2043, **0A-1327-0098**
(SET POWER SUPPLIES TO 11.0VDC)

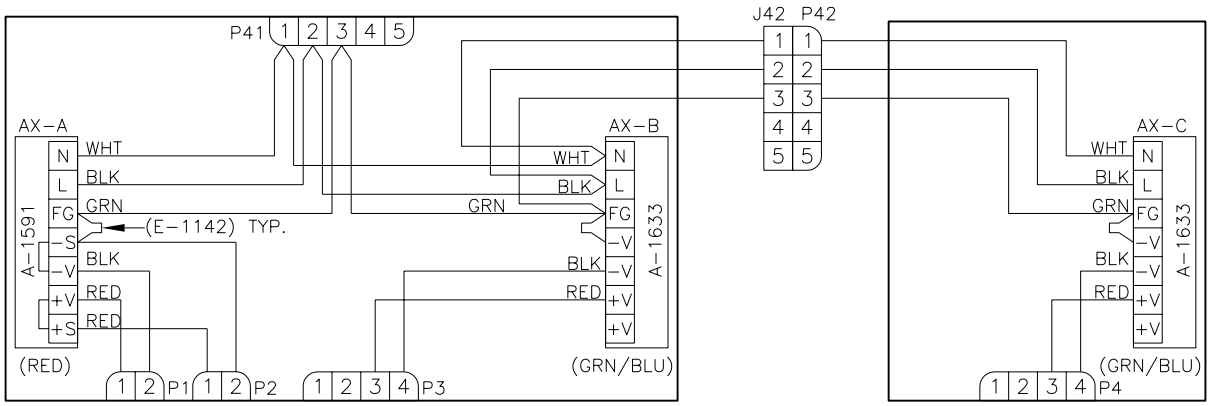


6.5/9.5VDC VERSION (DUAL FOR RG/RGB)
0A-1213-2042, **0A-1327-0096**
SET POWER SUPPLIES TO 6.5VDC (A-1591) AND 9.5VDC (A-1633)



4 MODS 4 MODS 4 MODS 4 MODS RG (NOT USED ON RGB)

6.5/9.5VDC VERSION (TRIPLE FOR RGB)
0A-1241-2001, **0A-1327-0095**
SET POWER SUPPLIES TO 6.5VDC (A-1591) AND 9.5VDC (A-1633)



4 MODS 4 MODS 4 MODS 4 MODS

NOTES

1) ALL WIRE IS 14 AWG EXCEPT * IS 18 AWG UNLESS OTHERWISE NOTED.
2) **ASSEMBLY NUMBERS IN BOLD HAVE MOUNTING BRACKET (0M-212638).**

REV.	DATE	DESCRIPTION	BY	APPR.
06	27JUL04	ADDED NEW ASSY NUMBERS 0A-1327-0095, -0096,-0097,-0098, -0099.	DJM	
05	16OCT01	CHANGED ASSEMBLY NUMBERS FROM (4013, 4026, 4022, 4034, 4001) TO (2039, 2011, 2043, 2042, 2001) RESPECTIVELY.	DJM	
04	08MAY01	ADDED 0A-1241-4001 ASSEMBLY	LLK	
03	03 JAN 01	ADDED 0A-1213-4034 PACKET	LMH	
02	09MAY00	CHANGED 0A-1213-4013 PS ASSEMBLY FROM 9.6VDC TO 9.0VDC.	LLK	
01	20APR00	CHANGED 0A-1213-4004 PACKET TO 0A-1213-4013 FOR THE 9V POWER SUPPLY	MDM	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: 1.33" LINE DISPLAYS

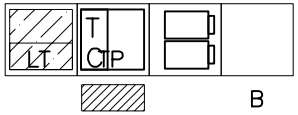
TITLE: SCHEMATIC; POWER SUPPLY CONFIGURATIONS

DES. BY: DRAWN BY: LKERR DATE: 17 JAN 00

REVISION 06 APPR. BY: SCALE:

1213-R03A-126330

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.) → PS103



FRONT VIEW

POWER SUPPLIES
0A-1289-4004
PS ASSY, 2, A-1620

B
FAN
0A-1213-4014
B-1006 W/HARDWARE

T C
THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP
POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT
LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

NOTES:

1. 12.48" FOR MODULE SIZE

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: BANK OF HARTINGTON

TITLE: COMP. LAYOUT DIAGRAM, AF-3050-1664-20

DES. BY: MMAMMENGA DRAWN BY: EYOUNG DATE: 02 DEC 02

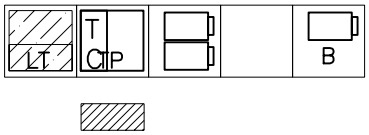
REVISION APPR. BY:

SCALE: NONE

10458-E10A-179430

REV.	DATE	DESCRIPTION	BY	APPR.

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.) → PS103



FRONT VIEW

POWER SUPPLY
0Z–10052–3300P
PS ASSY, 2, A–1620

B

FAN
0A–1213–4014
B–1006 W/HARDWARE

T C

THERMOSTAT
0A–1213–4024
ENCLOSURE; THERMOSTAT 85–70–9L
MOUNTED ON VERTICAL.

TP

POWER TERMINATION BOX
0A–1215–4002
ASSY; POWER TERM BOX 120V–*L

LT

LIGHT DETECTOR
0A–1215–4001
ASSY; LIGHT DETECTOR–34MM

CONTROLLER BOARD
0A–1146–0035
CONTROLLER BOARD

FILTER
EN–1774
FILTER W/ WEATHERSTRIP

POWER SUPPLY
0Z–10095–3300P
PS ASSY, 1, A–1620

NOTES:

1. 12.48" FOR MODULE SIZE

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: PROMUTUEL

TITLE: COMP. LAYOUT DIAGRAM, AF–3050–1680–20

DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 05JUN02

REVISION

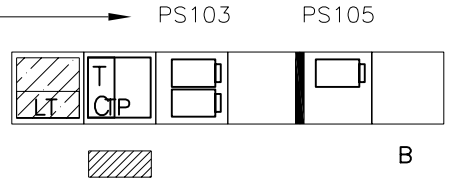
APPR. BY:

SCALE: NONE

10095-E10A-168206

REV.	DATE	DESCRIPTION	BY	APPR.

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.)



FRONT VIEW

POWER SUPPLY
0Z-10052-3300P
PS ASSY, 2, A-1620

B
FAN
0A-1213-4014
B-1006 W/HARDWARE

T C
THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP
POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT
LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

POWER SUPPLY
0A-1089-4001
PS ASSY, 1, A-1620

NOTES:

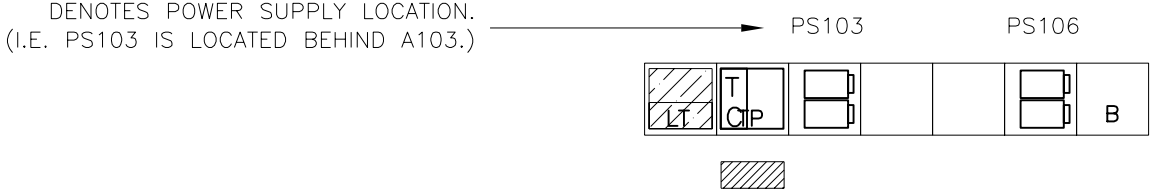
1. 12.48" FOR MODULE SIZE

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALEX COOPER
TITLE: COMP. LAYOUT DIAGRAM AF-3050-1696-20
DES. BY: MMAMMENGA DRAWN BY: EYOUNG DATE: 19 NOV 02
APPR. BY:
SCALE: NONE
REVISION

10410-E10A-178829

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.)



FRONT VIEW

POWER SUPPLY
0Z-10052-3300P
PS ASSY, 2, A-1620

B

FAN
0A-1213-4014
B-1006 W/HARDWARE

T
C

THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP

POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT

LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

NOTES:

1. 12.48" FOR MODULE SIZE

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: MALVERN TRUST & SAVINGS BANK

TITLE: COMP. LAYOUT DIAGRAM, AF-3050-16112-20-R

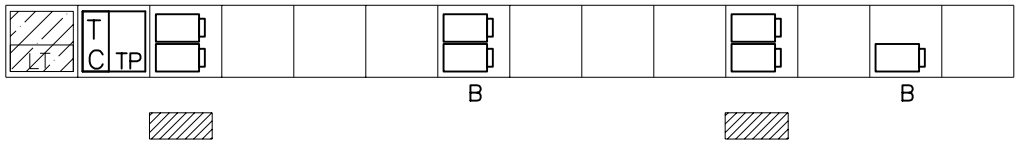
DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 13JUN02

SCALE: NONE APPR. BY:

REVISION

10109-E10A-169016

PS103 ← DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.)



FRONT VIEW

POWER SUPPLY
0Z-10052-3300P
PS ASSY, 2, A-1620
0Z-10162-3300P
PS ASSY, 1, A-1620

B
FAN
0A-1213-4014
B-1006 W/HARDWARE

T
C
THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP
POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT
LIGHT DETECTOR
0A-1213-4009
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

NOTES:

1. 12.48" FOR MODULE SIZE

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CALGARY AIRPORT AUTHORITY

TITLE: COMP. LAYOUT DIAGRAM, AF-3050-16224-20

DES. BY: MMAMMENGA DRAWN BY: MSTUBBE DATE: 18 JUL 02

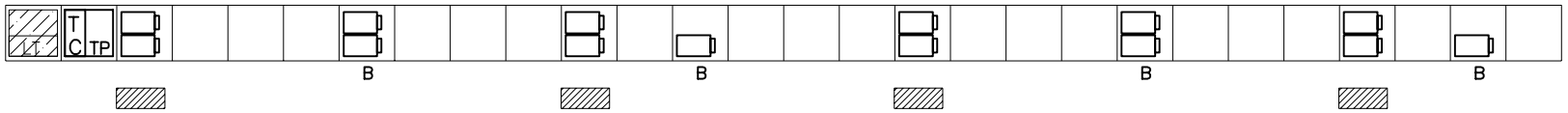
REVISION

APPR. BY:

SCALE: NONE

10162-E10A-171407

PS103 ← DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.)



FRONT VIEW

POWER SUPPLY
0Z-10052-3300P
PS ASSY, 2, A-1620
0Z-10162-3300P
PS ASSY, 1, A-1620

B
FAN
0A-1213-4014
B-1006 W/HARDWARE

T C
THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP
POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT
LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

NOTES:

1. 12.48" FOR MODULE SIZE

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CALGARY AIRPORT AUTHORITY

TITLE: COMP. LAYOUT DIAGRAM, AF-3050-16448-20

DES. BY: MMAMMENGA DRAWN BY: MSTUBBE DATE: 18 JUL 02

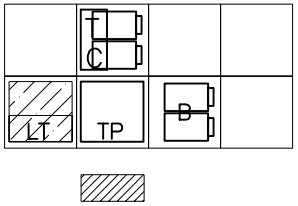
REVISION

APPR. BY:

SCALE: NONE

10162-E10A-171433

DENOTES POWER SUPPLY LOCATION.
(I.E. PS104 IS LOCATED BEHIND A104.) → PS104



FRONT VIEW

POWER SUPPLIES
0Z-9854-3300P
PS ASSY, 2, A-1620

B
FAN
0A-1213-4014
B-1006 W/HARDWARE

TC
THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP
POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT
LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

NOTES:

1. 10.64" FOR MODULE SIZE

REV.	DATE	DESCRIPTION	BY	APPR.

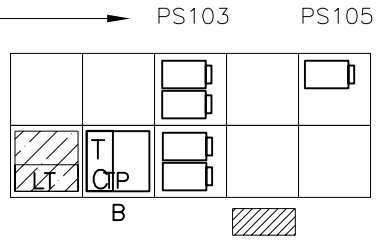
REVISION

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: WAL
TITLE: COMP. LAYOUT DIAGRAM, AF-3050-3264-23-R-WAL
DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 11OCT01
APPR. BY:
SCALE: NONE

9854-E10A-15731 1

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.)



FRONT VIEW

POWER SUPPLY
0A-1289-4002
PS ASSY, 2, A-1620

B

FAN
0A-1213-4014
B-1006 W/HARDWARE

T
C

THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP

POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT

LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

NOTES:

1. 12.48" FOR MODULE SIZE

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

POWER SUPPLY
0A-1289-4001
PS ASSY, 1, A-1620

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: GALAXY, AF-3050, 20MM

TITLE: COMP. LAYOUT DIAGRAM, AF-3050-3280-20

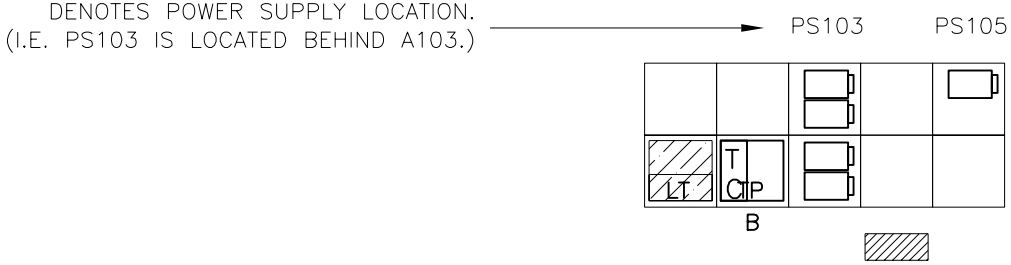
DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 020CT02

REVISION APPR. BY:

SCALE: 1=30

1289-E10A-176203

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.)



FRONT VIEW

POWER SUPPLY
0Z-9854-3300P
PS ASSY, 2, A-1620

B

FAN
0A-1213-4014
B-1006 W/HARDWARE

T
C

THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP

POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT

LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

POWER SUPPLY
0Z-10161-3300P
PS ASSY, 1, A-1620

NOTES:

1. 12.48" FOR MODULE SIZE

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: DOVER AIR FORCE BASE

TITLE: COMP. LAYOUT DIAGRAM, AF-3050-3280-20

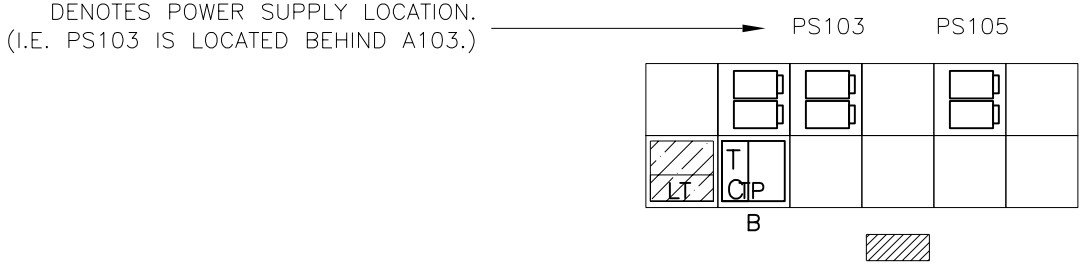
DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 24JUL02

SCALE: NONE APPR. BY:

REVISION

10161-E10A-171113

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.)



FRONT VIEW

POWER SUPPLY
0A-1289-4002
PS ASSY, 2, A-1620

B

FAN
0A-1213-4014
B-1006 W/HARDWARE

T C

THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP

POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT

LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

NOTES:

1. 12.48" FOR MODULE SIZE

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CITY OF CHATAUGUAY

TITLE: COMP. LAYOUT DIAGRAM, AF-3050-3296-20

DES. BY: MMAMMENGA DRAWN BY: EYOUNG DATE: 18 NOV 02

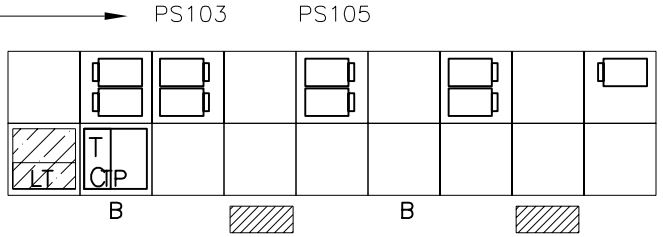
REVISION

APPR. BY:

SCALE: NONE

10422-E10A-178803

1. 12.48" FOR MODULE SIZE
DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.)



FRONT VIEW

POWER SUPPLY
0Z-9854-3300P
PS ASSY, 2, A-1620

B

FAN
0A-1213-4014
B-1006 W/HARDWARE

T
C

THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP

POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT

LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

NOTES:

1. 12.48" FOR MODULE SIZE

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

POWER SUPPLY
0Z-10161-3300P
PS ASSY, 1, A-1620

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: THELEN AUTO GROUP

TITLE: COMP. LAYOUT DIAGRAM, AF-3050-32144-20-A

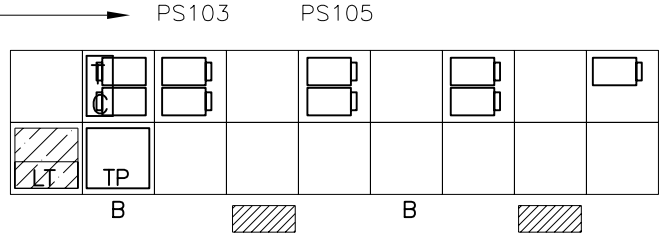
DES. BY: MMAMMENGA DRAWN BY: EYOUNG DATE: 27AUG2002

REVISION APPR. BY:

SCALE: NONE

10288-E10A-174299

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.)



FRONT VIEW

POWER SUPPLY
0A-1289-4002
PS ASSY, 2, A-1620

B

FAN
0A-1213-4014
B-1006 W/HARDWARE

TC

THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP

POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT

LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

NOTES:

1. 12.48" FOR MODULE SIZE

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

POWER SUPPLY
0A-1289-4003
PS ASSY, 1, A-1620

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: GALAXY, AF-3050, 20MM

TITLE: COMP. LAYOUT DIAGRAM, AF-3050-32144-20

DES. BY: MMAMMENGA DRAWN BY: MSTUBBE DATE: 08NOV02

APPR. BY:

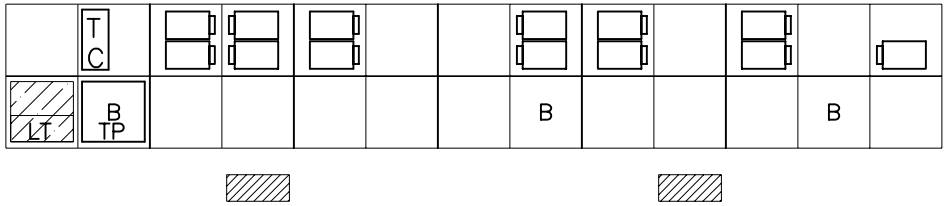
SCALE: NONE

REVISION

1289-E10A-178219

REV.	DATE	DESCRIPTION	BY	APPR.

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.) → PS103



FRONT VIEW

POWER SUPPLIES
0Z-9881-3300PP
PS ASSY, 2, A-1591

POWER SUPPLIES
0Z-9881-3300P
PS ASSY, 1, A-1591

THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP
POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT
LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

B
FAN
0A-1213-4014
B-1006 W/HARDWARE

NOTES:

1. 10.64" FOR MODULE SIZE

REVISION	APPR. BY:	SCALE: NONE

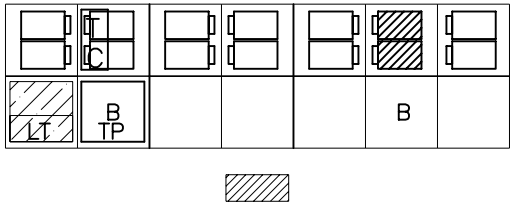
DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: NEWARK INT'L AIRPORT
TITLE: COMP. LAYOUT DIAGRAM, AF-3050-32208-23-A
DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 31DEC01

9881-E10A-160769

REV.	DATE	DESCRIPTION	BY	APPR.

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.) → PS103



FRONT VIEW

POWER SUPPLIES
0Z-9927-3300P
PS ASSY, 1 A-1620, 1 A-1632

POWER SUPPLIES
0Z-9927-3300PP
PS ASSY, SHORT, 1 A-1620, 1 A-1632

TC
THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP
POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT
LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

B
FAN
0A-1213-4010
B-1019 W/HARDWARE

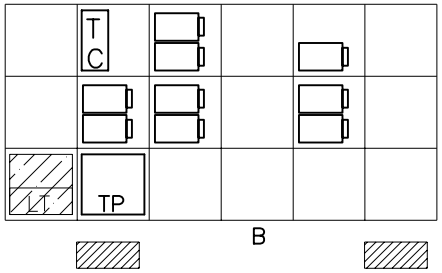
NOTES:

1. 14.4" FOR MODULE SIZE

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: DENVER INTERNATIONAL AIRPORT
TITLE: COMP. LAYOUT DIAGRAM, AF-3050-32112-23-RG
DES. BY: MMAMMENGA DRAWN BY: JMAMMENGA DATE: 15 JAN 02
APPR. BY:
SCALE: 1=1
REVISION
9927-E10A-161368

PS103 ← DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.)



FRONT VIEW

POWER SUPPLY
0Z-9854-3300P
PS ASSY, 2, A-1620
0Z-10162-3300P
PS ASSY, 1, A-1620

TP
POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

B
FAN
0A-1213-4014
B-1006 W/HARDWARE

LT
LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

T
C
THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

NOTES:

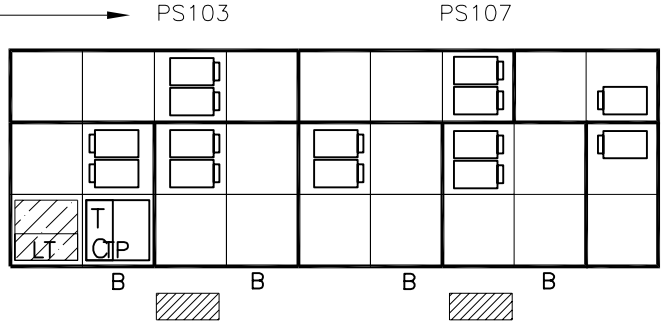
1. 12.48" FOR MODULE SIZE

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: NAVAL RESEARCH LAB
TITLE: COMP. LAYOUT DIAGRAM, AF-3050-4896-20
DES. BY: MMAMMENGA DRAWN BY: MSTUBBE DATE: 20 AUG 02
REVISION APPR. BY:
SCALE: NONE
10270-E10A-173812

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.)



FRONT VIEW

POWER SUPPLY
0Z-9854-3300P
PS ASSY, 2, A-1620

B
FAN
0A-1213-4014
B-1006 W/HARDWARE

T C
THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP
POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT
LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

POWER SUPPLY
0Z-10162-3300P
PS ASSY, 1, A-1620

NOTES:

1. 12.48" FOR MODULE SIZE

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: DOMINION VIRGINIA POWER

TITLE: COMP. LAYOUT DIAGRAM, AF-3050-48144-20

DES. BY: MMAMMENGA DRAWN BY: EYOUNG DATE: 21AUG2002

REVISION

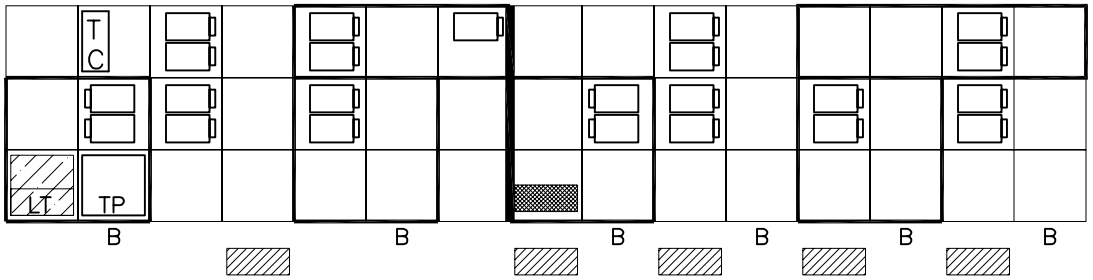
APPR. BY:

SCALE: NONE

10275-E10A-174010

REV.	DATE	DESCRIPTION	BY	APPR.
01	08 JAN 03	MOVED SINGLE POWER SUPPLY UP ONE MODULE PER ECO 33938	MJW	

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.) → PS103 PS105 PS110 PS114



48X112 SHELL 48X128 SHELL

FRONT VIEW

POWER SUPPLY
0A–1289–4002
PS ASSY, 2, A–1620

B
FAN
0A–1213–4014
B–1006 W/HARDWARE

T
C
THERMOSTAT
0A–1213–4024
ENCLOSURE; THERMOSTAT 85–70–9L
MOUNTED ON VERTICAL.

TP
POWER TERMINATION BOX
0A–1215–4002
ASSY; POWER TERM BOX 120V–*L

LT
LIGHT DETECTOR
0A–1215–4001
ASSY; LIGHT DETECTOR–34MM

CONTROLLER BOARD
0A–1146–0035
CONTROLLER BOARD

0A–1213–4009
ASSY, LIGHT SENSOR COVER

FILTER
EN–1774
FILTER W/ WEATHERSTRIP

POWER SUPPLY
0A–1241–4003
PS ASSY, 1, A–1620

NOTES:

1. 12.48" FOR MODULE SIZE

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: WESTCHESTER COUNTY AIRPORT

TITLE: COMP. LAYOUT DIAGRAM, AF–3050–48240–20

DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 28OCT02

REVISION

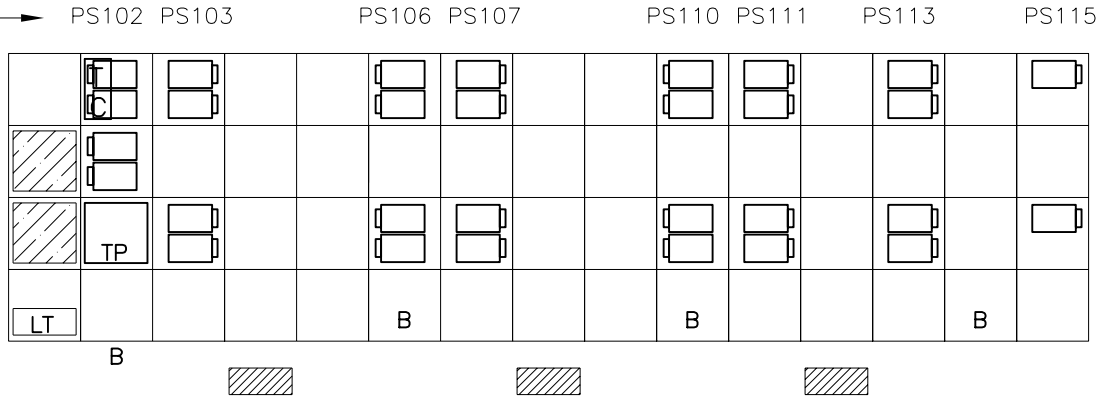
APPR. BY:

SCALE: NONE

10374-E10A-17753

REV.	DATE	DESCRIPTION	BY	APPR.
01	05AUG02	MOVED INTERNAL COMPONENTS. (THERMOSTAT, SINGLE POWER SUPPLIES, CONTROLLER, & POWER BOX.	MDM	

DENOTES POWER SUPPLY LOCATION.
(I.E. PS102 IS LOCATED BEHIND A102.)



FRONT VIEW

POWER SUPPLY
0Z-9854-3300P
PS ASSY, 2, A-1620

B

FAN
0A-1213-4010
B-1019 W/HARDWARE

TC

THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP

POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT

LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

POWER SUPPLY
0Z-10162-3300P
PS ASSY, 1, A-1620

NOTES:

1. 12.48" FOR MODULE SIZE

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CALGARY AIRPORT AUTHORITY

TITLE: COMP. LAYOUT DIAGRAM, AF-3050-64240-20-A

DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 18JUL02

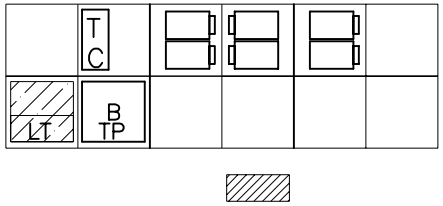
REVISION

APPR. BY:

SCALE: NONE

10162-E10A-171408

DENOTES POWER SUPPLY LOCATION.
(I.E. PS103 IS LOCATED BEHIND A103.) → PS103



FRONT VIEW

POWER SUPPLIES
0Z-9881-3300PP
PS ASSY, 2, A-1591

B

FAN
0A-1213-4014
B-1006 W/HARDWARE

T
C

THERMOSTAT
0A-1213-4024
ENCLOSURE; THERMOSTAT 85-70-9L
MOUNTED ON VERTICAL.

TP

POWER TERMINATION BOX
0A-1215-4002
ASSY; POWER TERM BOX 120V-*L

LT

LIGHT DETECTOR
0A-1215-4001
ASSY; LIGHT DETECTOR-34MM

CONTROLLER BOARD
0A-1146-0035
CONTROLLER BOARD

FILTER
EN-1774
FILTER W/ WEATHERSTRIP

NOTES:

1. 14.4" FOR MODULE SIZE

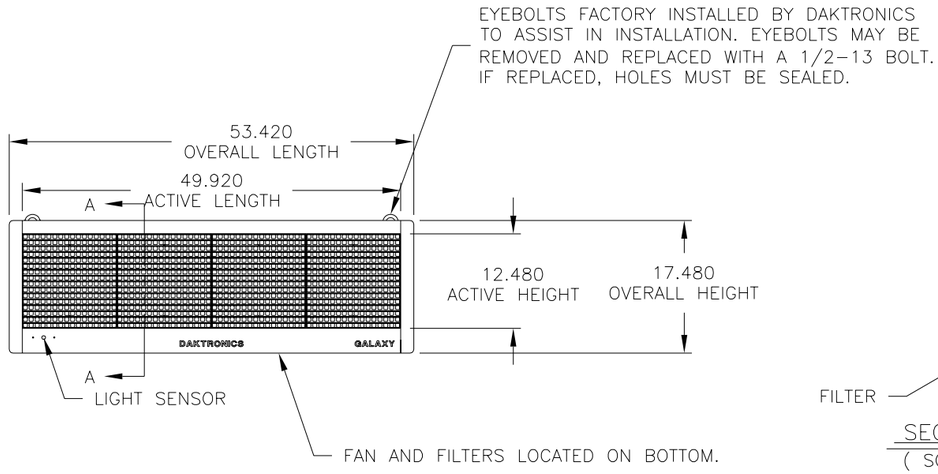
REV.	DATE	DESCRIPTION	BY	APPR.

REVISION

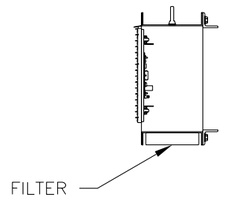
DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CLOVERNOOK CHRISTIAN CHURCH
TITLE: COMP. LAYOUT DIAGRAM, AF-3050-3296-23-A
DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 29APR02
APPR. BY:
SCALE: NONE

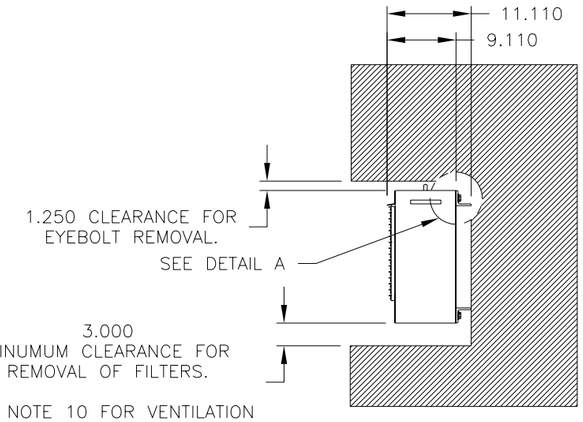
10034-E10A-166183



FRONT VIEW

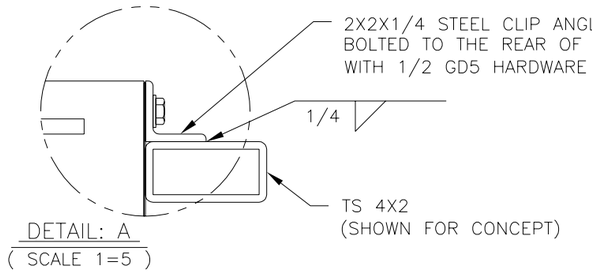


SECTION: A-A
(SCALE 1=20)

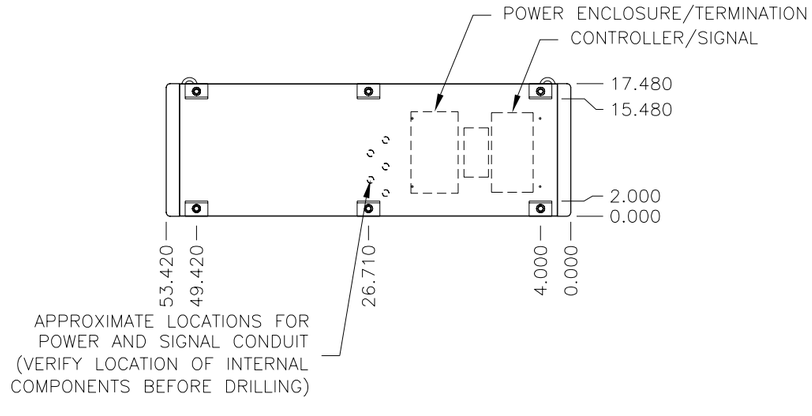


VIEW SHOWN WITHOUT INTERIOR COMPONENTS

SIDE VIEW



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 19 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 80 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS, 165 WATTS, 1.38 AMPS @120 VAC SINGLE PHASE.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: BANK OF HARTINGTON

TITLE: SHOP DRAWING, AF-3050-1664-20-A

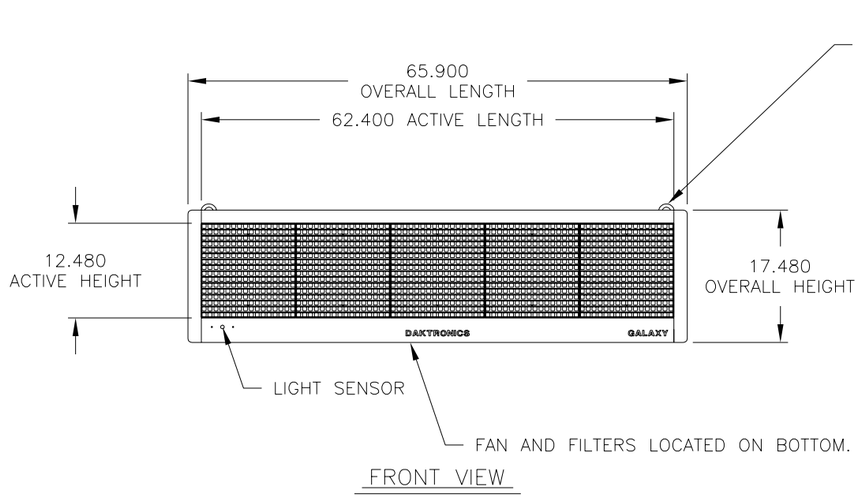
DES. BY: MMAMMENGA DRAWN BY: EYOUNG DATE: 02 DEC 02

REVISION APPR. BY:

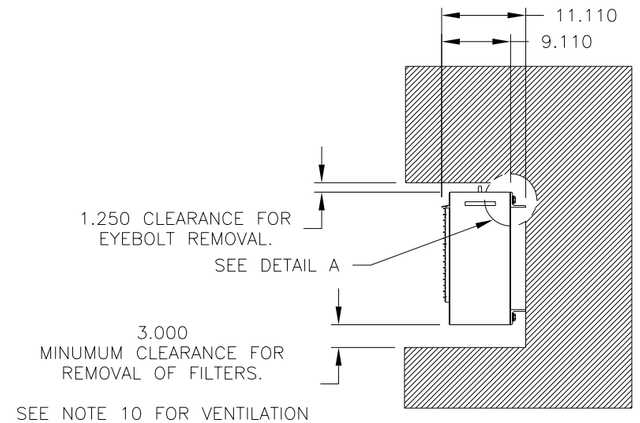
SCALE: 1=20

10458-E10B-179428

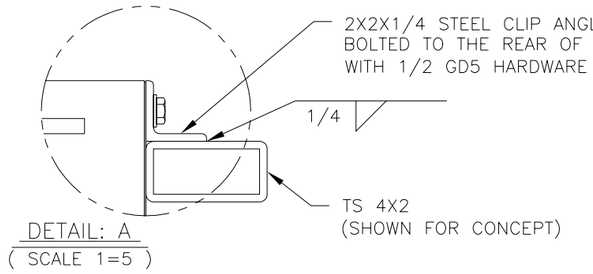
REV.	DATE	DESCRIPTION	BY	APPR.



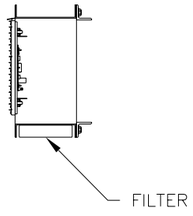
FRONT VIEW



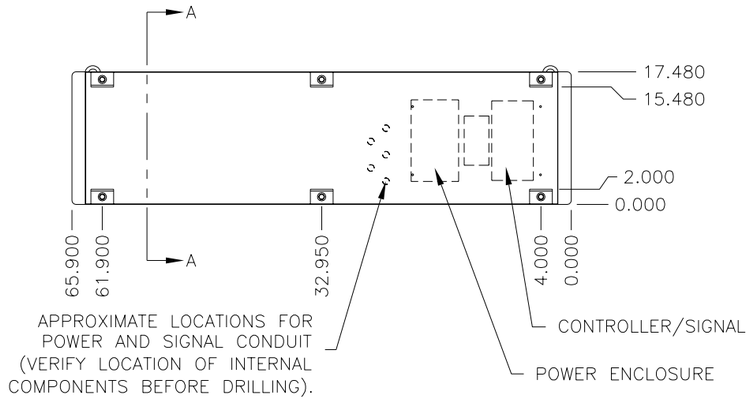
SIDE VIEW



DETAIL: A
(SCALE 1=5)



SECTION: A-A



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 10 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHTS, MARQUEE 100 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. MARQUEE POWER REQUIREMENTS, 173.6 WATTS, 1.45 AMPS @120 VAC SINGLE PHASE.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ADVANCE CHIROPRACTIC

TITLE: SHOP DRAWING, AF-3050-1680-R

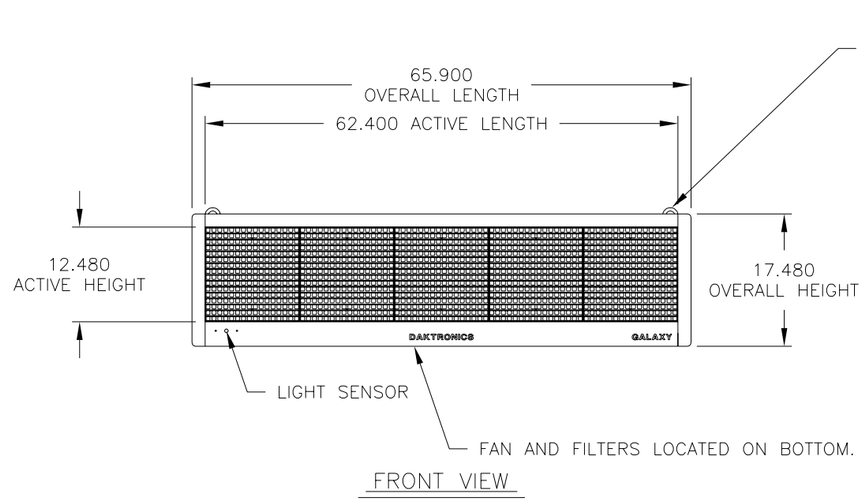
DES. BY: MMAMMENGA DRAWN BY: MSTUBBE DATE: 08 AUG 02

REVISION APPR. BY:

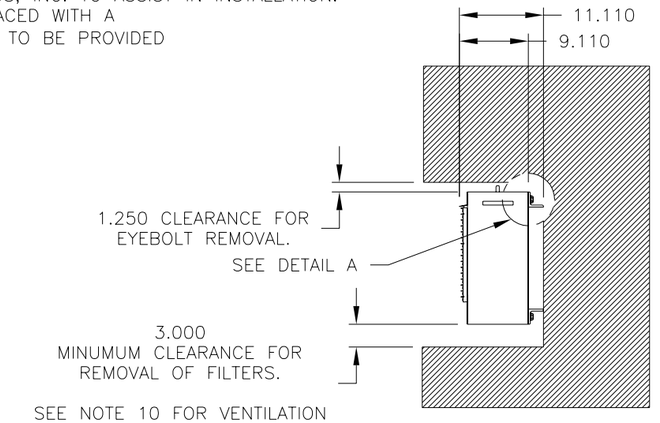
SCALE: 1=20

10250-E10B-173201

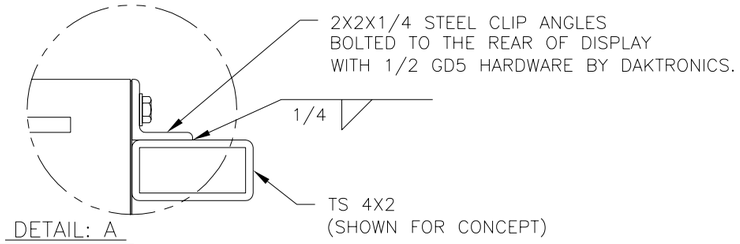
REV.	DATE	DESCRIPTION	BY	APPR.



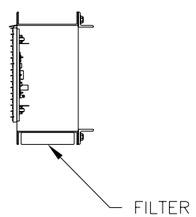
FRONT VIEW



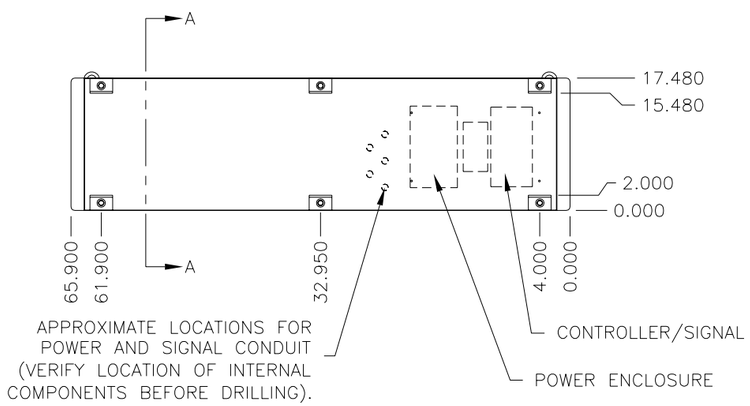
SIDE VIEW



DETAIL: A
(SCALE 1=5)



SECTION: A–A



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 19 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHTS, MARQUEE 100 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. MARQUEE POWER REQUIREMENTS, 173.6 WATTS, 1.45 AMPS @120 VAC SINGLE PHASE.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: WESTERN WATERPROOFING

TITLE: SHOP DRAWING, AF–3050–1680–20–R

DES. BY: MMAMMENGA DRAWN BY: EYOUNG DATE: 02 DEC 02

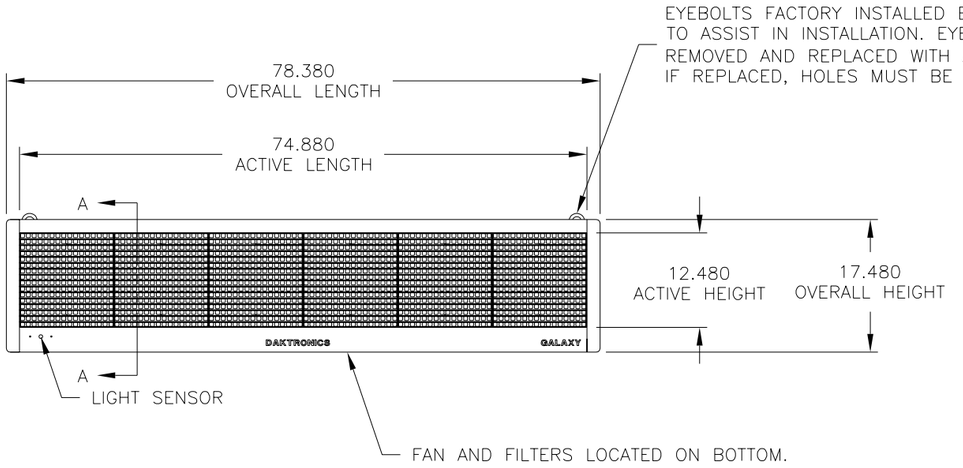
REV.	DATE	DESCRIPTION	BY	APPR.

REVISION

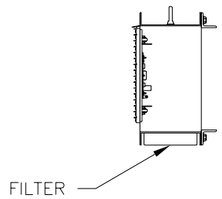
APPR. BY:

SCALE: 1=20

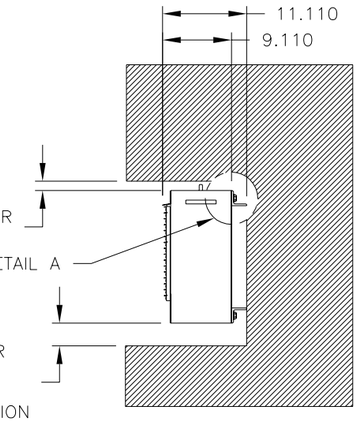
10455-E10B-179425



FRONT VIEW



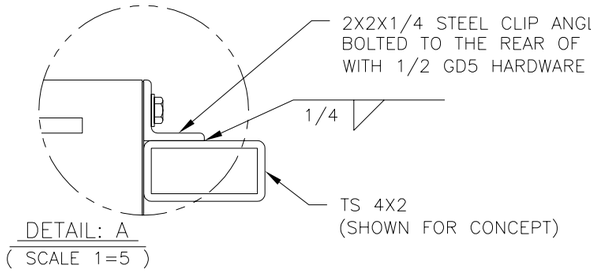
SECTION: A-A
(SCALE 1=20)



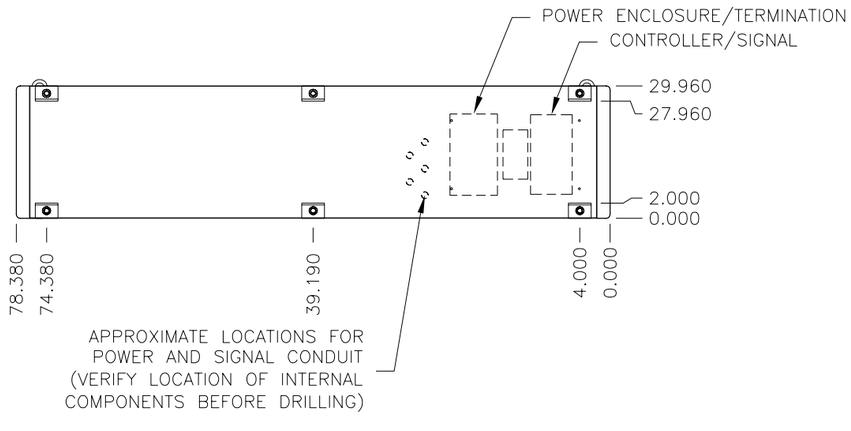
SEE NOTE 10 FOR VENTILATION REQUIREMENTS.

VIEW SHOWN WITHOUT INTERIOR COMPONENTS

SIDE VIEW



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 19 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 120 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS, TO BE DETERMINED.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: PROPOSAL DRAWINGS

TITLE: SHOP DRAWING, AF-3050-1696-20

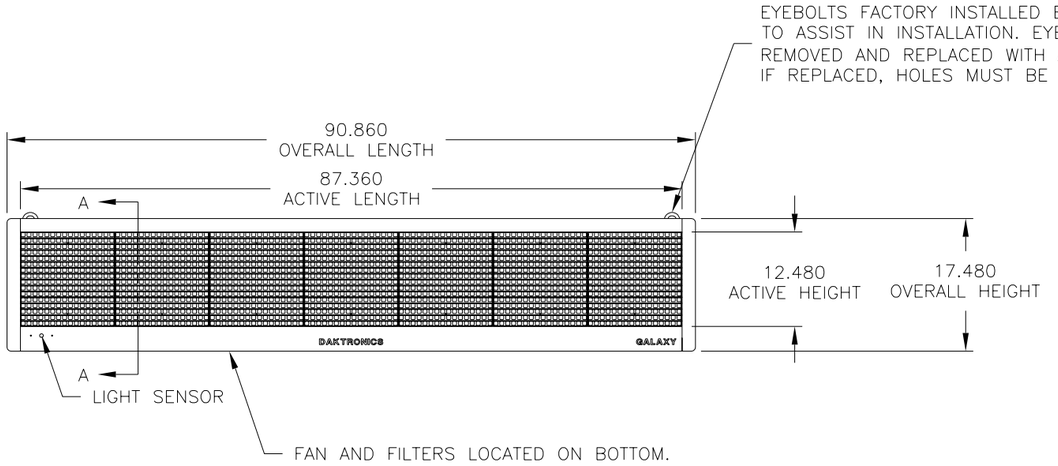
DES. BY: MMAMMENGA DRAWN BY: EYOUNG DATE: 3 OCT 02

REVISION APPR. BY:

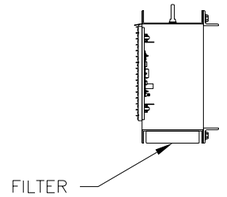
SCALE: 1=20

1289-E10B-176334

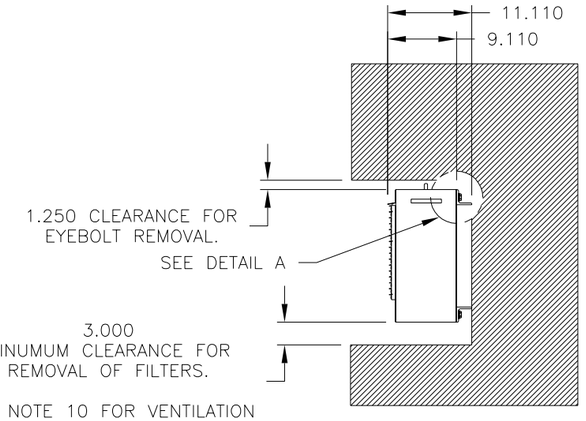
REV.	DATE	DESCRIPTION	BY	APPR.



FRONT VIEW

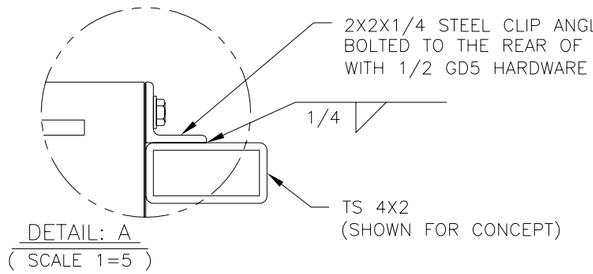


SECTION: A-A
(SCALE 1=20)

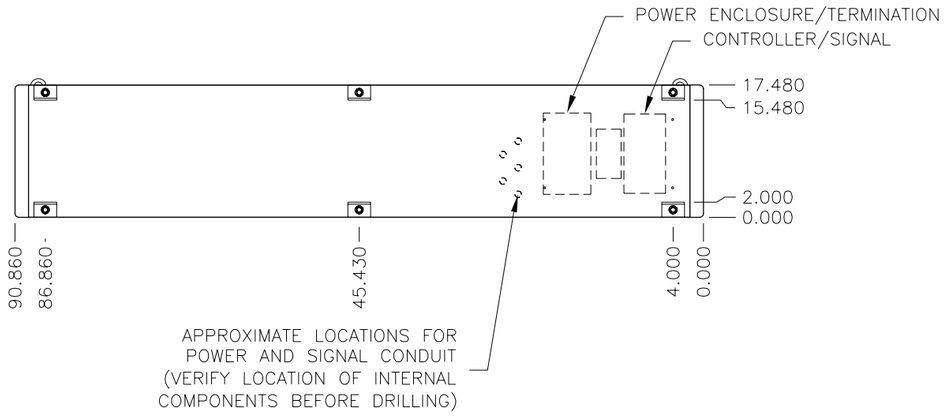


VIEW SHOWN WITHOUT INTERIOR COMPONENTS

SIDE VIEW



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 10 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 140 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS, 264 WATTS, 2.2 AMPS @120 VAC SINGLE PHASE.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CALGARY AIRPORT AUTHORITY

TITLE: SHOP DRAWING, AF-3050-16112-20-A

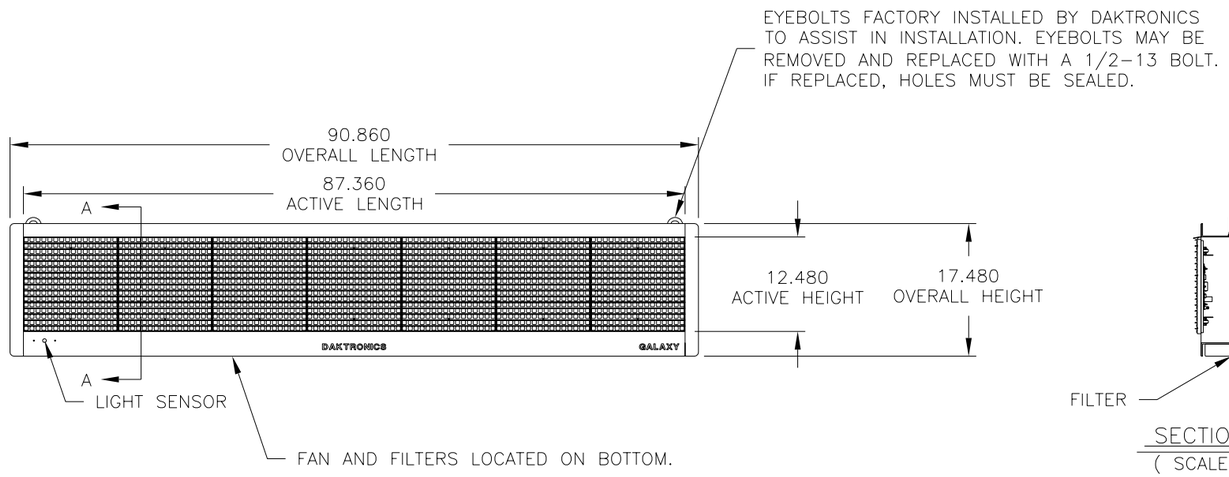
DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 01AUG02

REVISION APPR. BY:

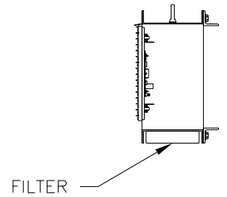
SCALE: 1=20

10162-E10B-172615

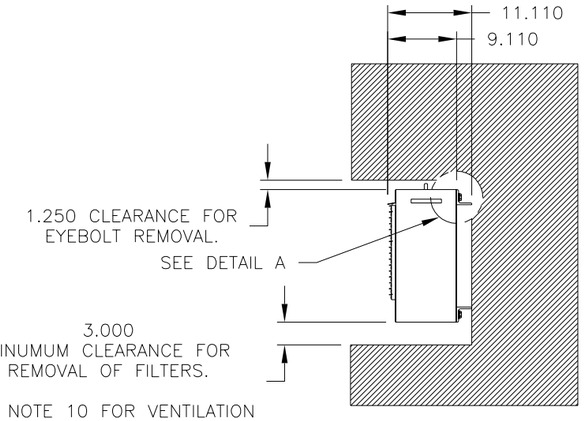
REV.	DATE	DESCRIPTION	BY	APPR.



FRONT VIEW

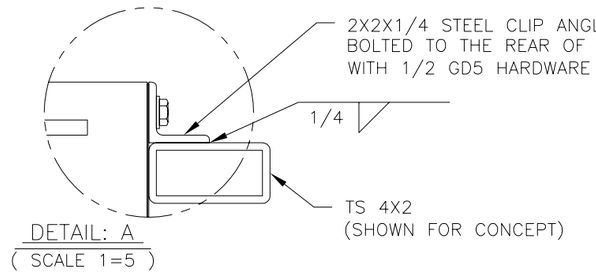


SECTION: A-A
(SCALE 1=20)

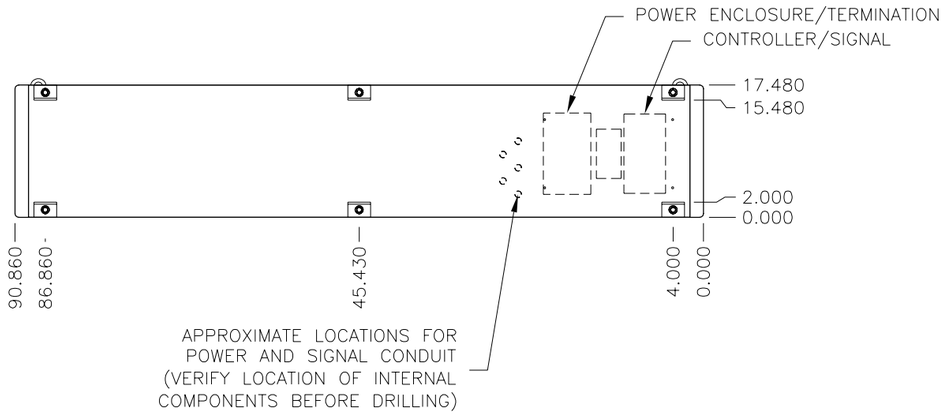


VIEW SHOWN WITHOUT INTERIOR COMPONENTS

SIDE VIEW



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 6 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 10 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 140 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS, 230 WATTS, 1.91 AMPS @120 VAC SINGLE PHASE.

REV.	DATE	DESCRIPTION	BY	APPR.
01	09JUL02	UPDATED VERTICAL DIMENSION ON THE REAR VIEW.	MDM	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: MALVERN TRUST & SAVINGS BANK

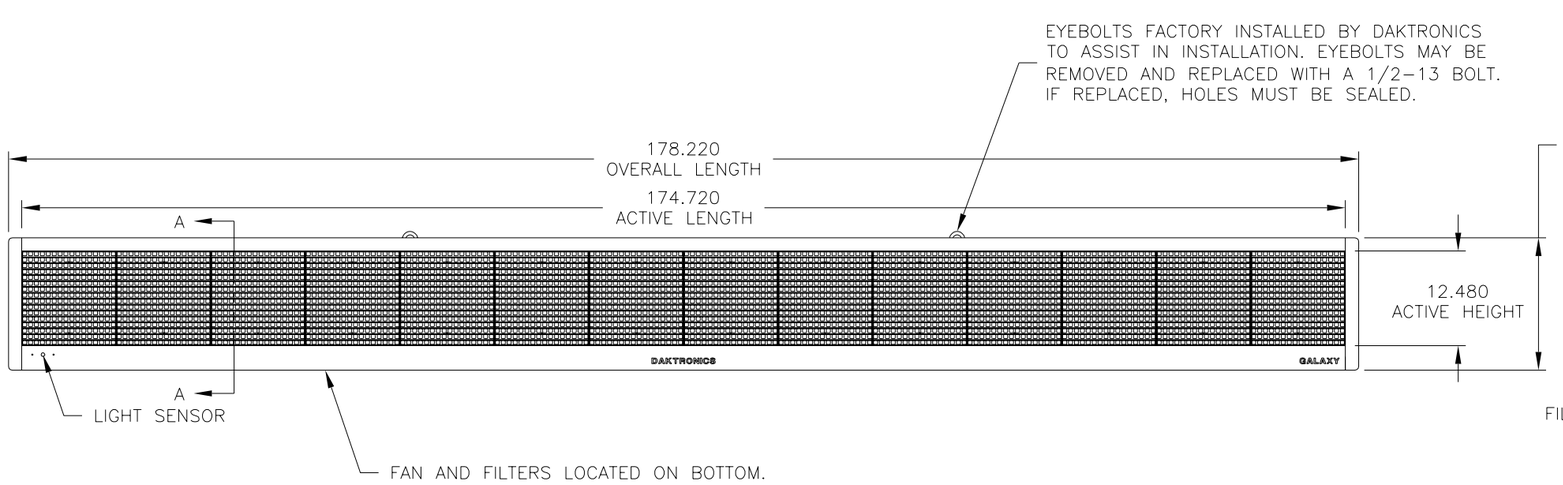
TITLE: SHOP DRAWING, AF-3050-16112-20-R

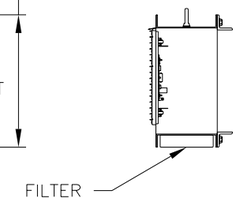
DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 12JUN02

REVISION APPR. BY:

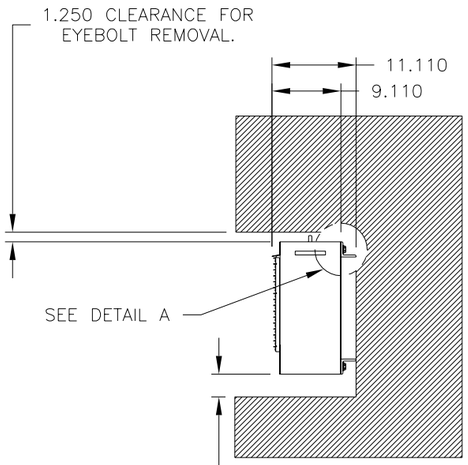
SCALE: 1=20

10109-E10B-168885





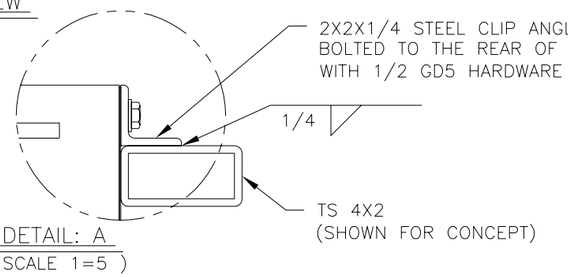
SECTION: A-A
(SCALE 1=20)



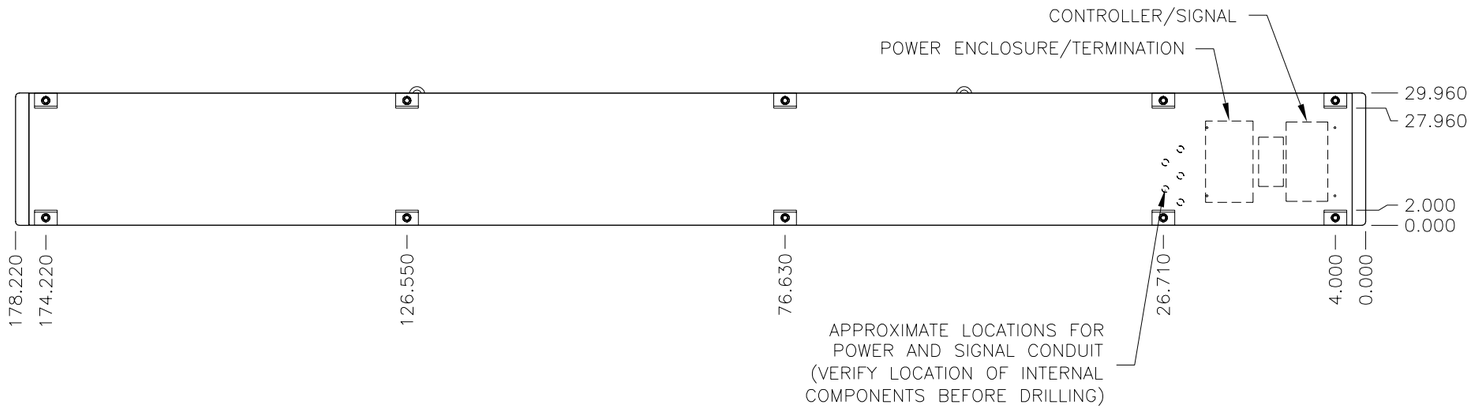
SIDE VIEW

FRONT VIEW

VIEW SHOWN WITHOUT INTERIOR COMPONENTS



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 6 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 10 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 280 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS, 517 WATTS, 4.3 AMPS @120 VAC SINGLE PHASE.

REV.	DATE	DESCRIPTION	BY	APPR.
01	02AUG02	MOVED CLIP ANGLES TO MISS FILTER BRACKETS.	MDM	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CALGARY AIRPORT AUTHORITY

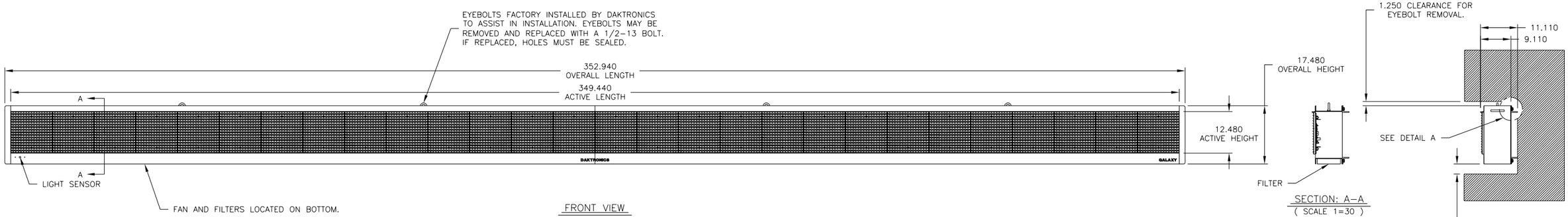
TITLE: SHOP DRAWING, AF-3050-16224-20-A

DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 02JUL02

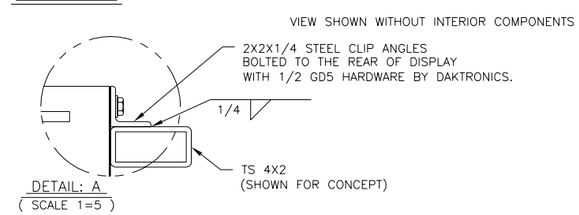
REVISION APPR. BY:

SCALE: 1=20

10162-E10B-170473



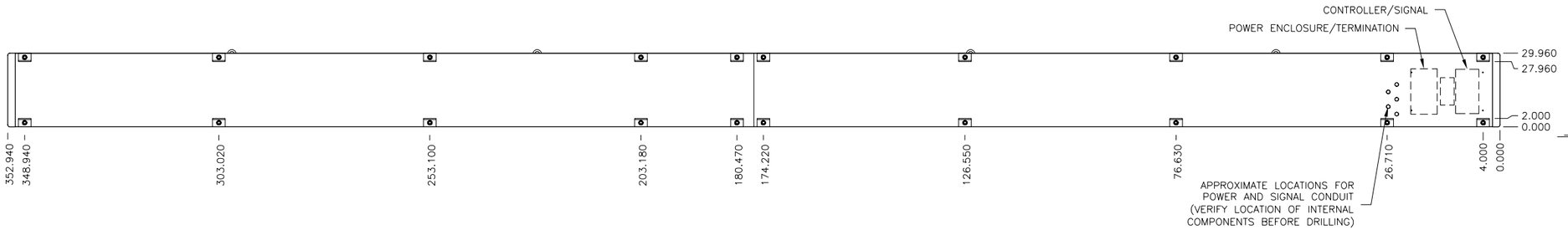
FRONT VIEW



DETAIL: A
(SCALE 1=5)

SECTION: A-A
(SCALE 1=30)

SIDE VIEW



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 6 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 10 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 560 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS, 1034 WATTS, 8.6 AMPS @120 VAC SINGLE PHASE.

REV.	DATE	DESCRIPTION	BY	APPR.
01	02AUG02	MOVED CLIP ANGLES TO MISS FILTER BRACKETS.	MDM	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CALGARY AIRPORT AUTHORITY

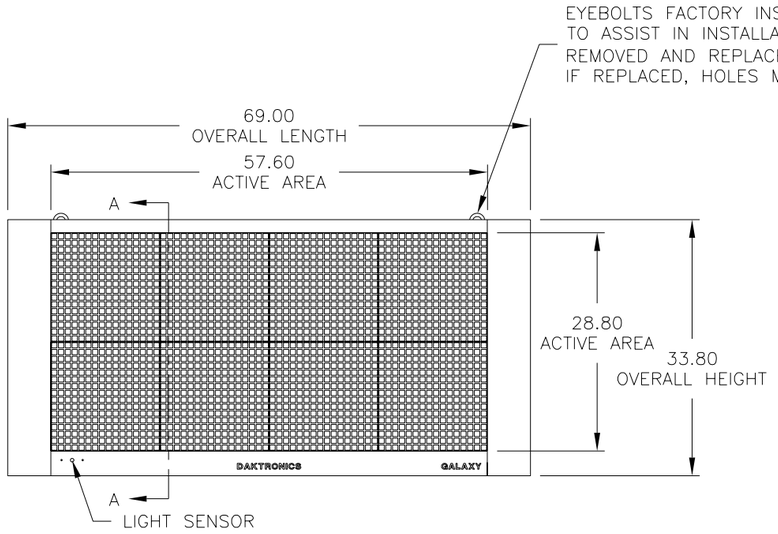
TITLE: SHOP DRAWING, AF-3050-16448-20-A

DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 02JUL02

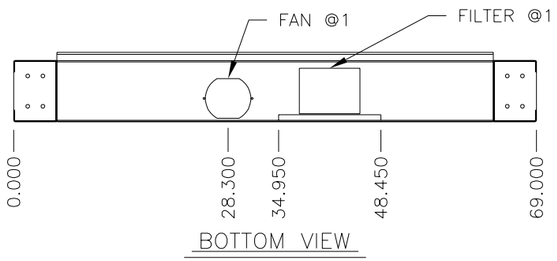
REVISION APPR. BY:

SCALE: 1=30

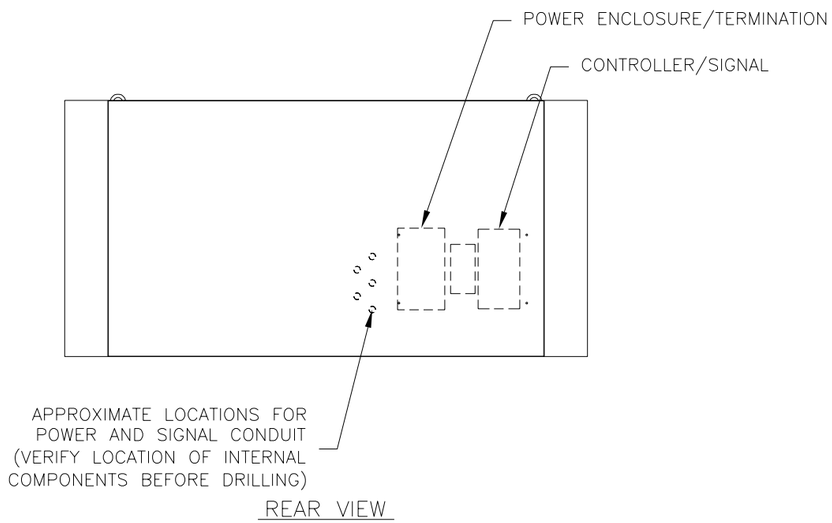
10162-E10B-170481



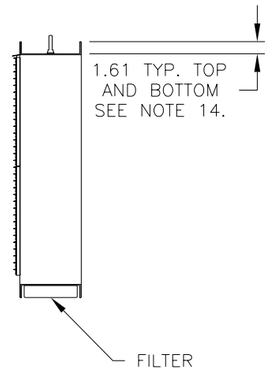
FRONT VIEW



BOTTOM VIEW

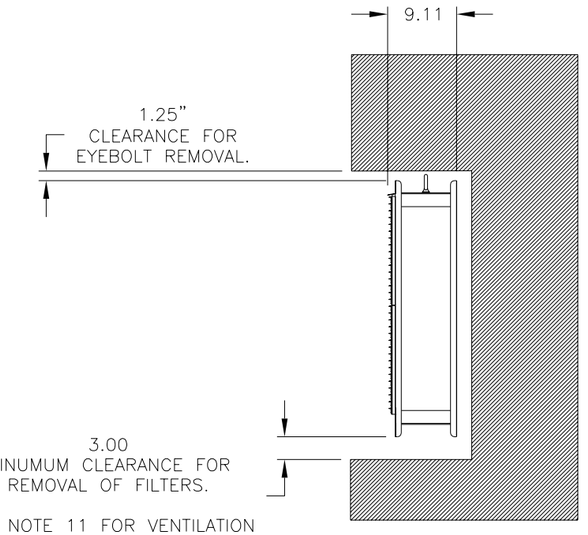


REAR VIEW



SECTION: A-A
(SCALE 1=20)

VIEW SHOWN WITHOUT INTERIOR COMPONENTS



SIDE VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS WALGREENS BRONZE.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. POWER REQUIREMENTS: 240 WATTS, 2.00 AMPS @ 120VAC PER DISPLAY.
10. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
11. VENTILATION: IN ENCLOSED CABINET SITUATION, 6 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 10 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (14.4" X 14.4" ACTIVE AREA).
12. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
13. APPROXIMATE WEIGHT PER DISPLAY: 160 LBS.
14. DAKTRONICS CABINET IS DESIGNED TO BE SUPPORTED BY FOUR 1/2" GRADE 5. BOLTS MOUNTED A MAXIMUM OF 48" APART.
15. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.

REV.	DATE	DESCRIPTION	BY	APPR.
02	30AUG2002	ADDED FILTER TO SECTION A-A VIEW	EJY	
01	11OCT01	CHANGED OVERALL LENGTH FROM 61.10" TO 69.00". ADDED EXTRA SHROUDING. UPDATED POWER AND SIGNAL ENTRANCE.	MDM	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: GALAXY, LOUVERED, VENUS 1500, 23mm

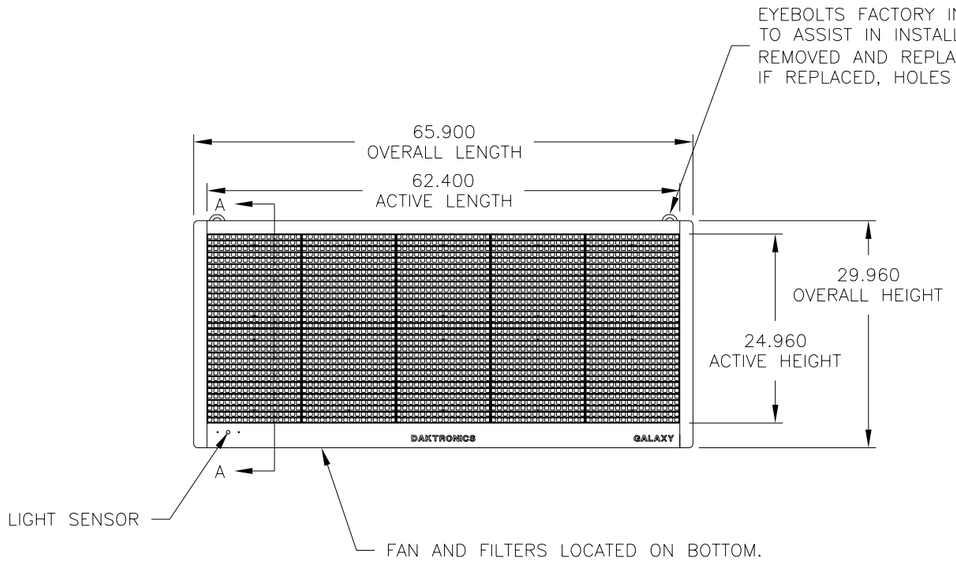
TITLE: SHOP DRAWING, AF-3050-3264-6-R

DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 12APR01

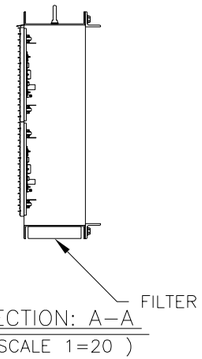
REVISION APPR. BY:

SCALE: 1=20

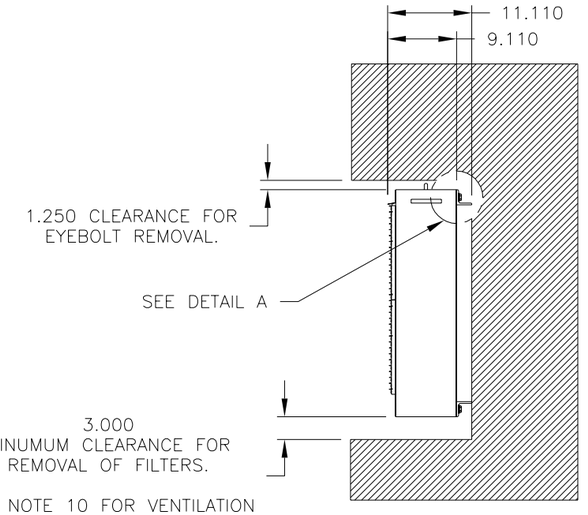
9854-E10B-147590



FRONT VIEW

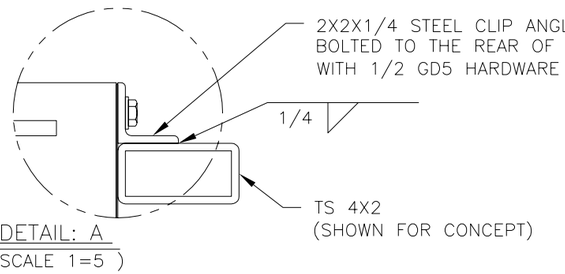


SECTION: A-A
(SCALE 1=20)

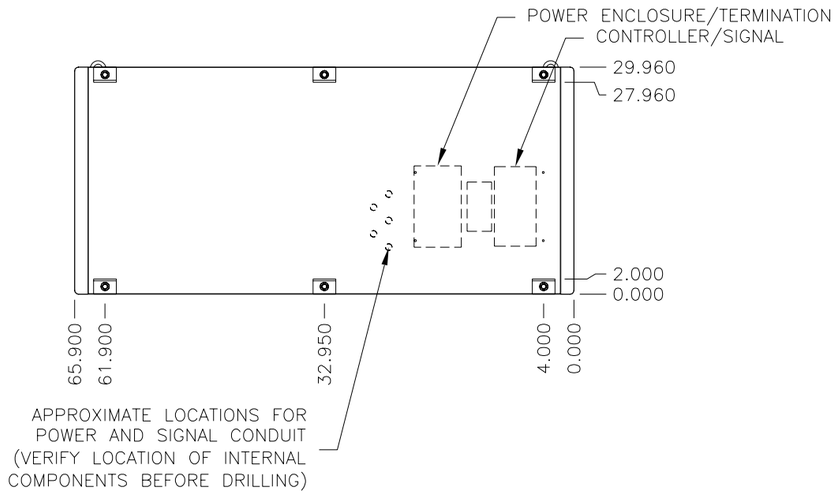


VIEW SHOWN WITHOUT INTERIOR COMPONENTS

SIDE VIEW



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 10 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 200 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS, 362 WATTS 3.02 AMPS @120VAC.

REV.	DATE	DESCRIPTION	BY	APPR.
02	30AUG2002	ADDED FILTER TO SECTION A-A VIEW	EJY	
01	26AUG02	CHANGED VENTILATION REQUIREMENTS FROM 6 SQUARE INCHES TO 12 SQUARE INCHES IN NOTE 10.	MDM	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: DOVER AIRFORCE BASE

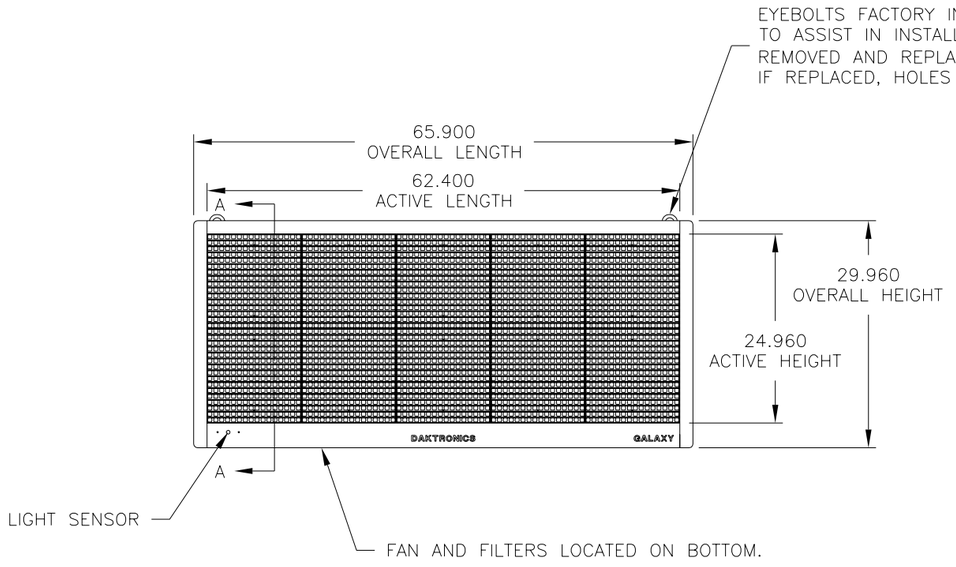
TITLE: SHOP DRAWING, AF-3050-3280-20-A

DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 11JUL02

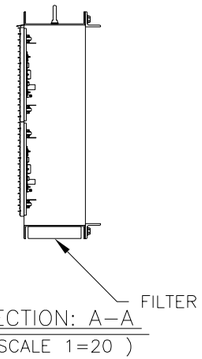
REVISION APPR. BY:

SCALE: 1=20

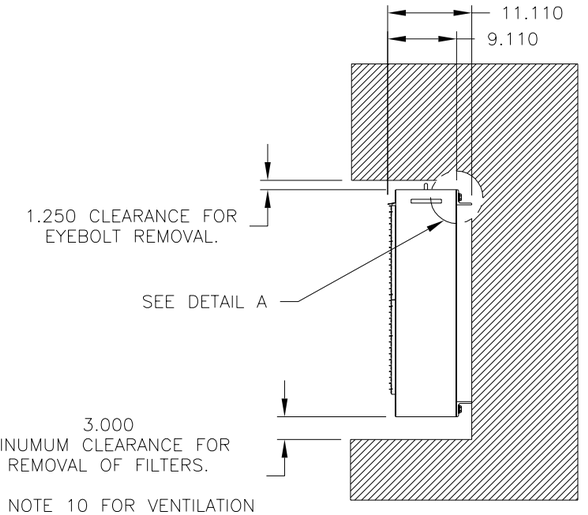
10161-E10B-171057



FRONT VIEW

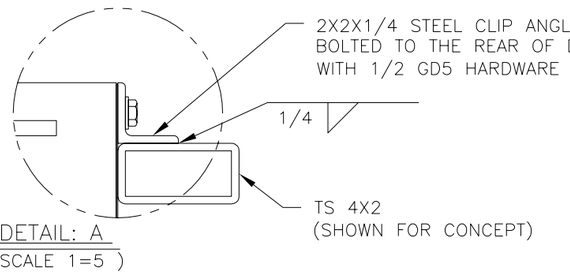


SECTION: A-A
(SCALE 1=20)

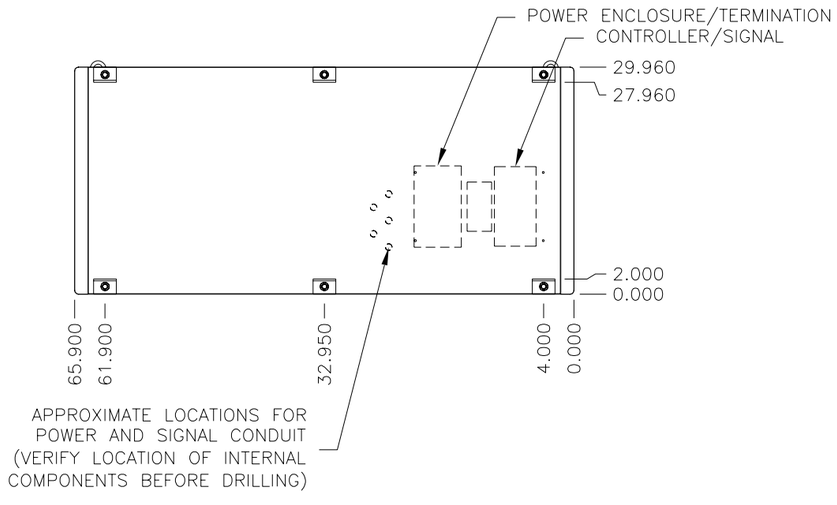


VIEW SHOWN WITHOUT INTERIOR COMPONENTS

SIDE VIEW



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 10 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 200 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS PER DISPLAY, 313 WATTS 2.61 AMPS @120VAC.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: GALAXY, AF-3050, 20MM

TITLE: SHOP DRAWING, AF-3050-3280-20-R

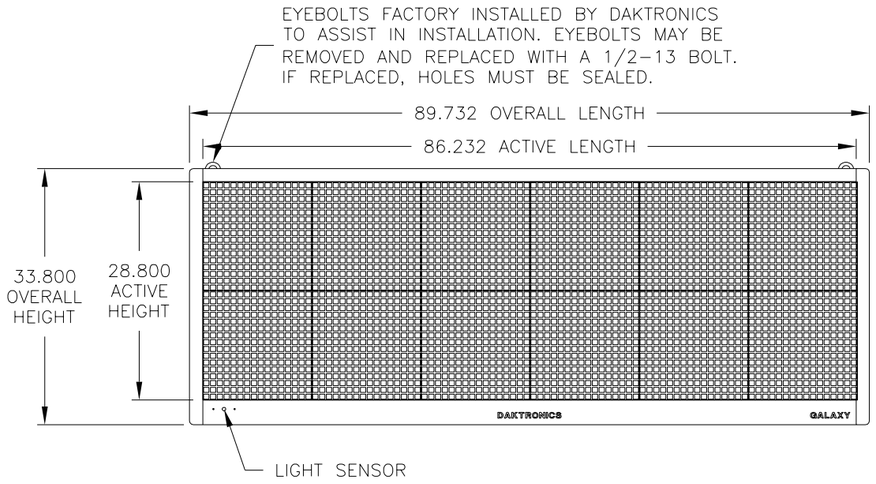
DES. BY: MMAMMENGA DRAWN BY: MSTUBBE DATE: 030CT02

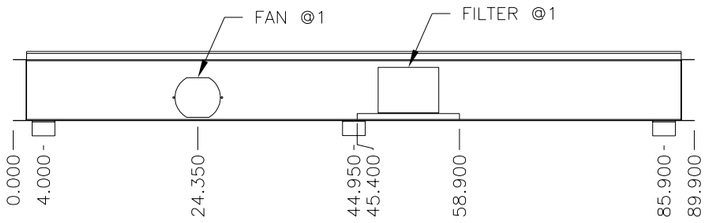
REVISION APPR. BY:

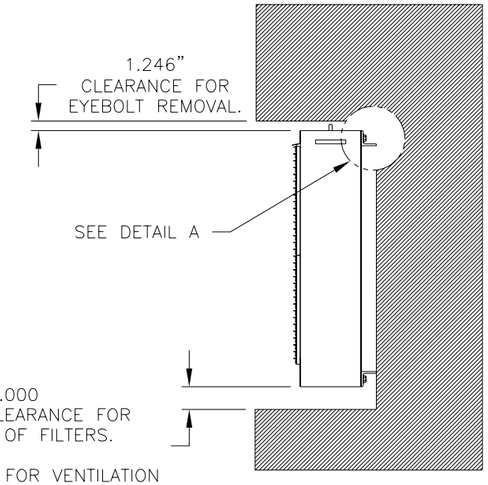
SCALE: 1=20

1289-E10B-176284

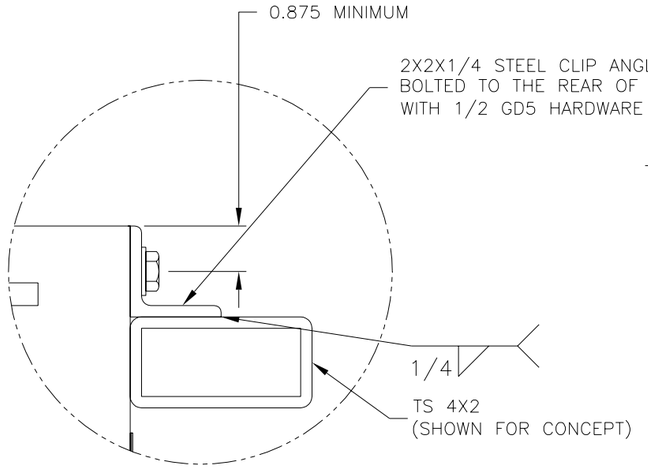
REV.	DATE	DESCRIPTION	BY	APPR.





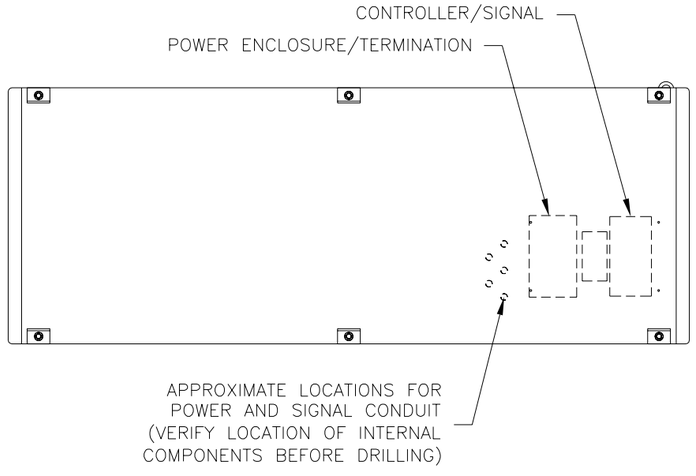


SIDE VIEW



DETAIL: A

SCALED UP 6X



NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. POWER REQUIREMENTS: 663 WATTS, 5.62AMPS @ 120VAC PER DISPLAY.
10. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
11. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 19 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (14.4" X 14.4" ACTIVE AREA).
12. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
13. APPROXIMATE WEIGHT PER DISPLAY: 200 LBS.
14. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CLOVERNOOK CHRISTIAN CHURCH

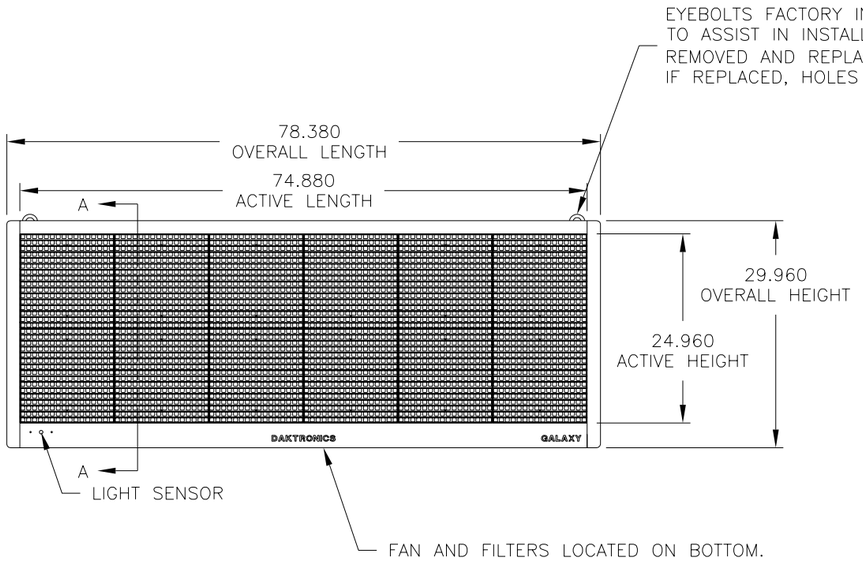
TITLE: SHOP DRAWING, AF-3050-3296-23-A

DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 23APR02

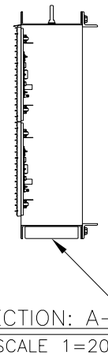
REVISION APPR. BY:

SCALE: 1=20

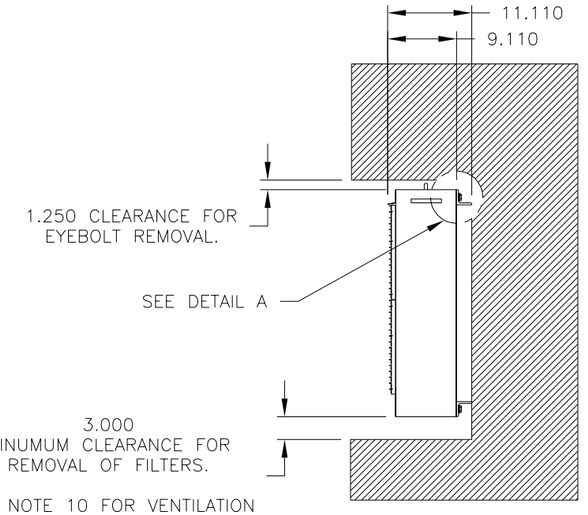
10034-E10B-165852



FRONT VIEW

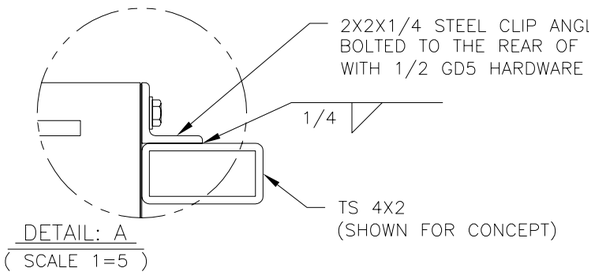


SECTION: A-A
(SCALE 1=20)

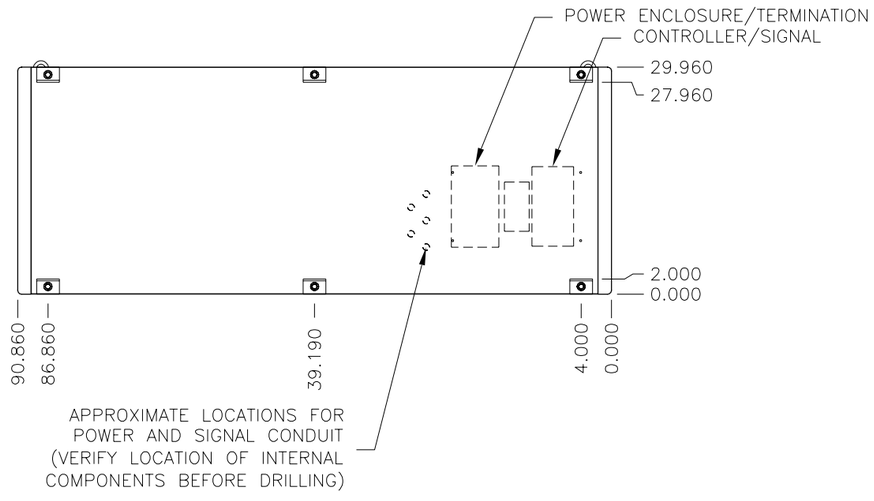


VIEW SHOWN WITHOUT INTERIOR COMPONENTS

SIDE VIEW



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 19 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 240 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS, TO BE DETERMINED.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: GALAXY, AF-3050, 20MM

TITLE: SHOP DRAWING, AF-3050-3296-20

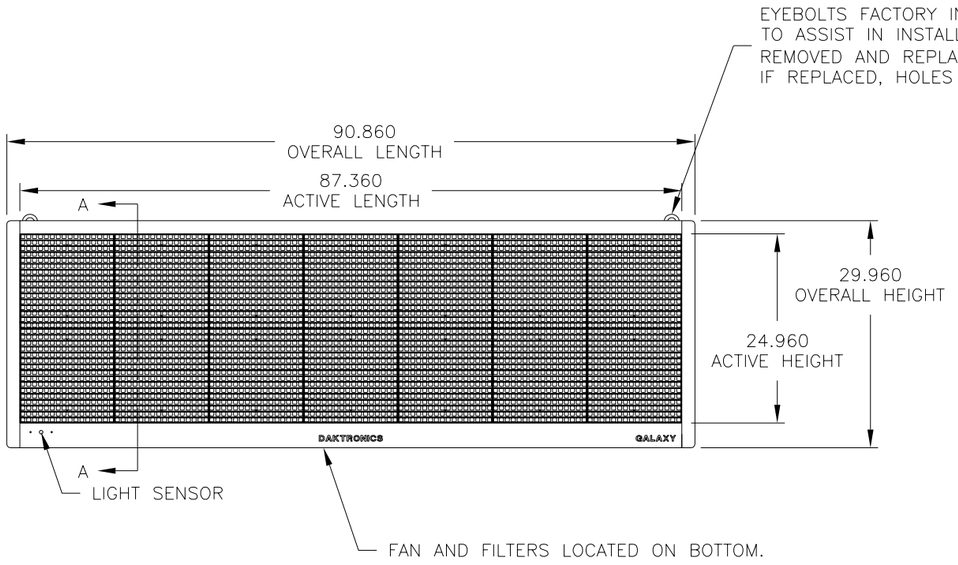
DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 03OCT02

REVISION APPR. BY:

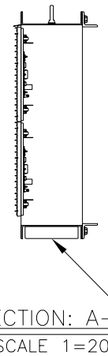
SCALE: 1=20

1289-E10B-176307

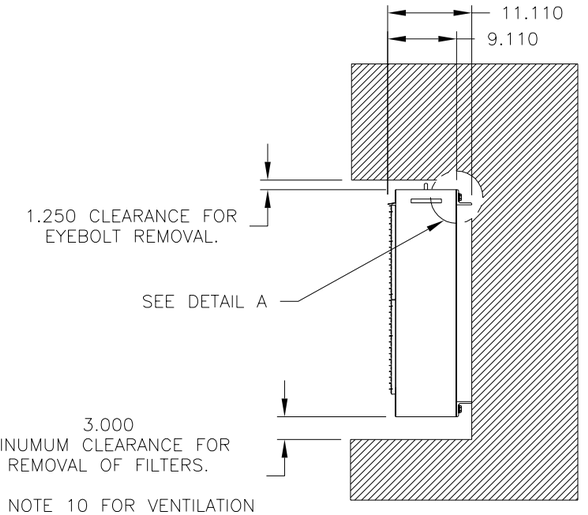
REV.	DATE	DESCRIPTION	BY	APPR.



FRONT VIEW

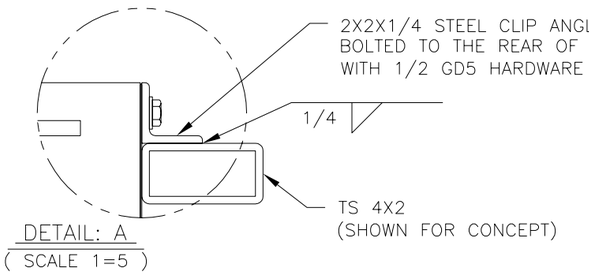


SECTION: A-A
(SCALE 1=20)

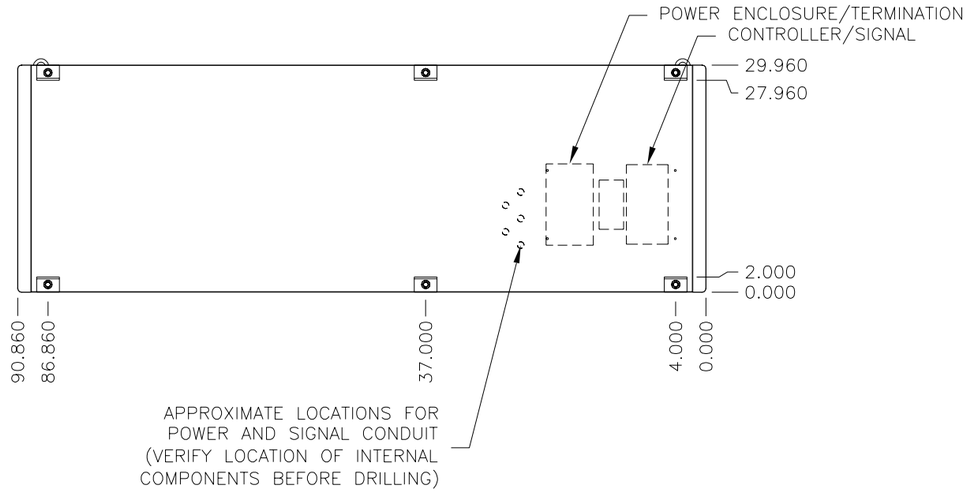


VIEW SHOWN WITHOUT INTERIOR COMPONENTS

SIDE VIEW



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

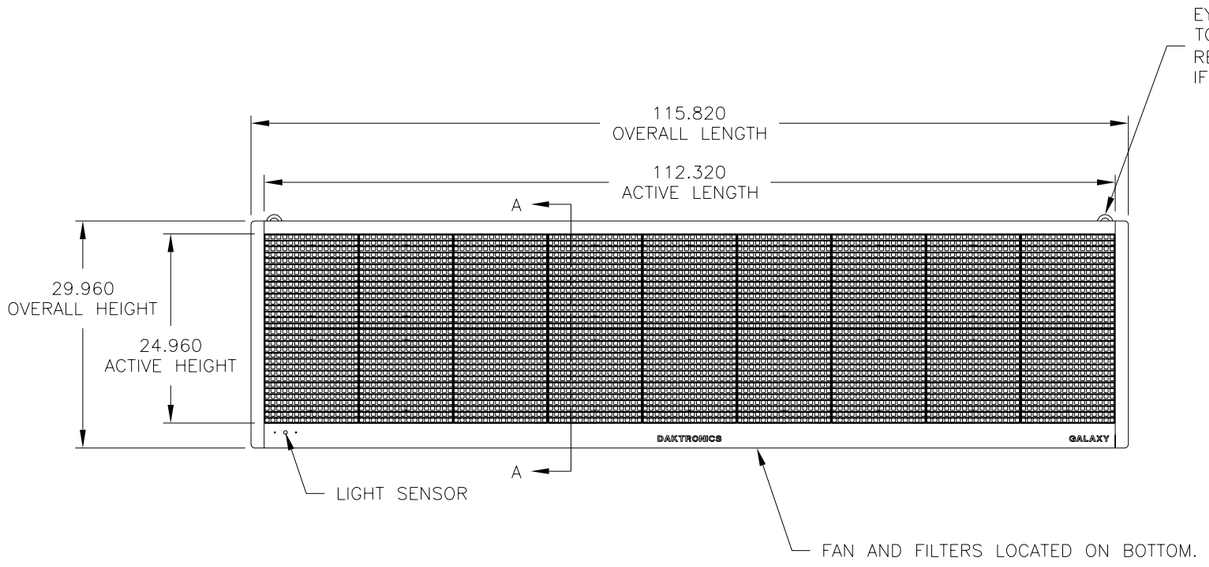
1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 10 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 19 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 280 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS, 450 WATTS 3.75 AMPS @120VAC.

DAKTRONICS, INC. BROOKINGS, SD 57006

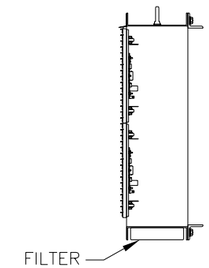
PROJ:	GALAXY, AF-3050, 20MM
TITLE:	SHOP DRAWING, AF-3050-32112-20-R
DES. BY: MMAMMENGA	DRAWN BY: MMAMMENGA DATE: 04OCT02
REVISION APPR. BY:	SCALE: 1=20

1289-E10B-176400

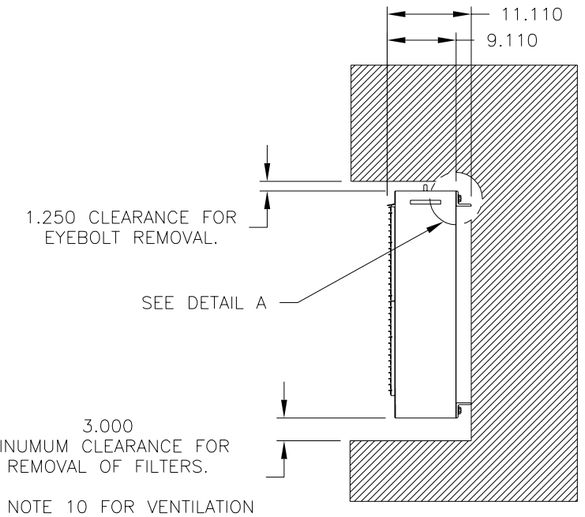
REV.	DATE	DESCRIPTION	BY	APPR.



FRONT VIEW



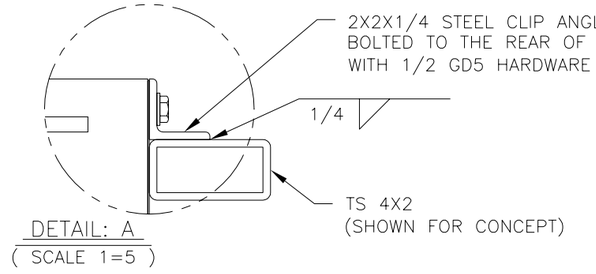
SECTION: A-A
(SCALE 1=20)



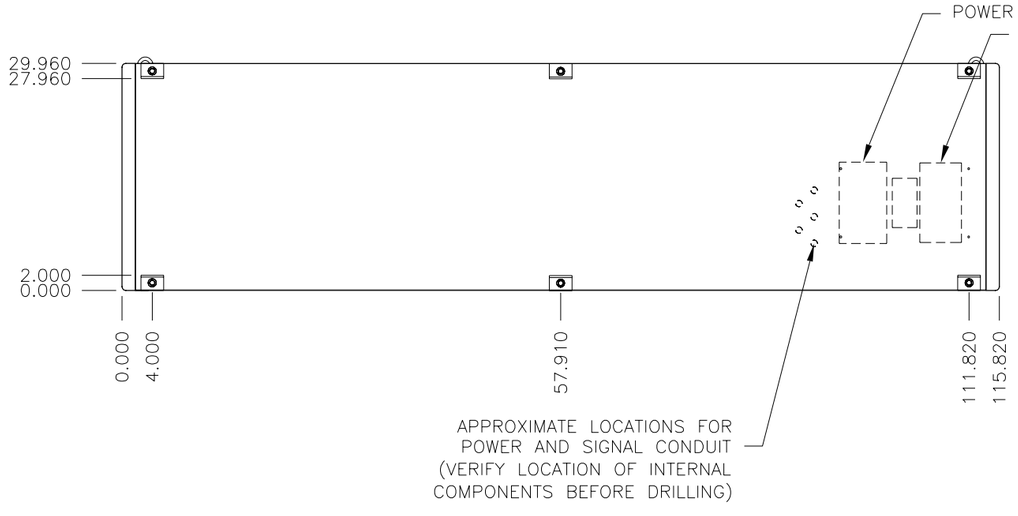
SEE NOTE 10 FOR VENTILATION REQUIREMENTS.

VIEW SHOWN WITHOUT INTERIOR COMPONENTS

SIDE VIEW



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 19 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 280 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS PER DISPLAY, 672 WATTS 5.60 AMPS @120VAC.

DAKTRONICS, INC. BROOKINGS, SD 57006

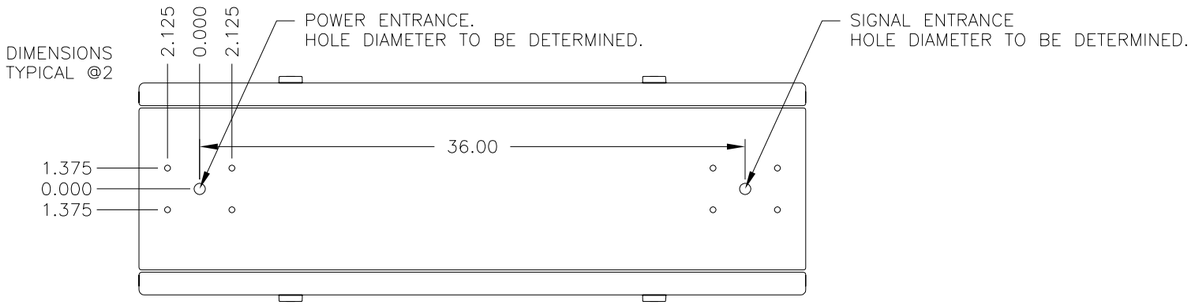
PROJ: GALAXY, AF-3050, 20MM

TITLE: SHOP DRAWING, AF-3050-32144-20-A

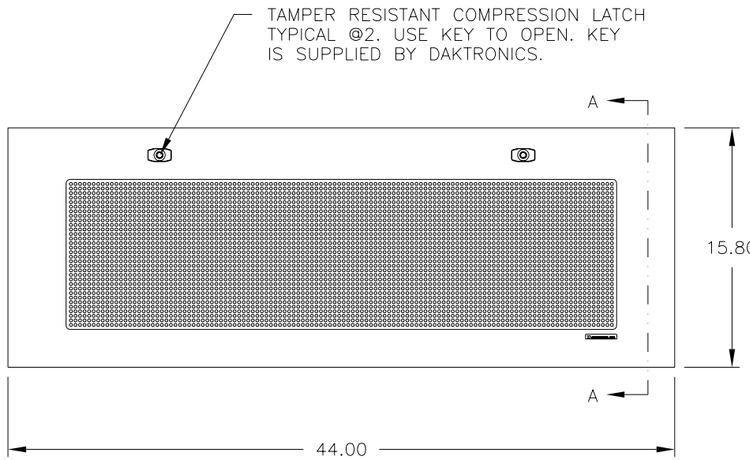
DES. BY: MMAMMENGA DRAWN BY: MSTUBBE DATE: 030CT02

REVISION | APPR. BY: | SCALE: 1=20 | 1289-E10B-176288

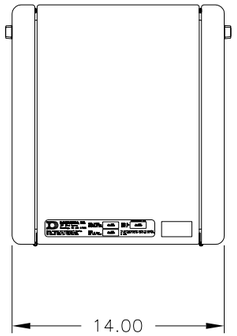
REV.	DATE	DESCRIPTION	BY	APPR.



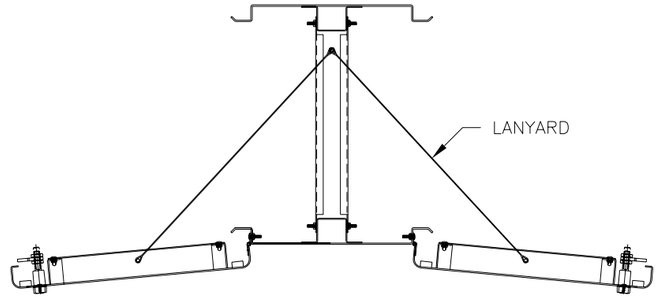
TOP VIEW



FRONT AND REAR VIEW

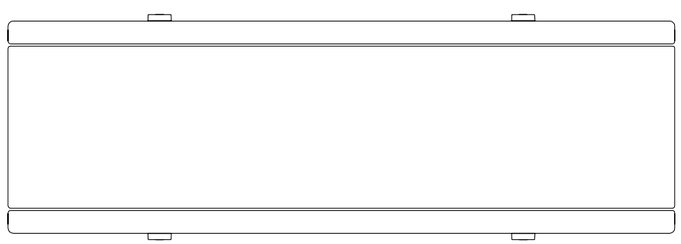


RIGHT SIDE



SECTION VIEW A–A

SHOWN WITH DOORS HINGED OPEN



BOTTOM VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. ESTIMATED WEIGHT: 80 LBS.
3. DISPLAY POWER REQUIREMENTS:
   120VAC, 2.0 AMPS, 240 WATTS.
4. CABINET AND DOOR ARE ALL ALUMINUM CONSTRUCTION.
5. CABINET AND DOOR FINISH IS FLAT BLACK.
6. FACE PANEL IS 0.118" (0.125 NOMINAL) POLYCARBONATE.
7. EACH MATRIX IS 32X120 MONOCHROME L.E.D.'S 0.3" C–C.
8. FRONT ACCESS FOR SERVICING BY USING A KEY TO OPEN.
   KEY IS SUPPLIED BY DAKTRONICS.
9. COMPRESSION LATCH COLOR: POWDER COATED BLACK.

REV.	DATE	DESCRIPTION	BY	APPR.
2	23FEB00	CHANGED C–C SPACING OF MOUNTING FROM 30.00 TO 36.00. ADJUSTED WEIGHT FROM 97 POUNDS TO 80 POUNDS.	DJD	
1	23JUL99	CHANGED MOUNTING DIMENSION FROM "TO BE DETERMINED" TO 30".	DJD	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ARINC

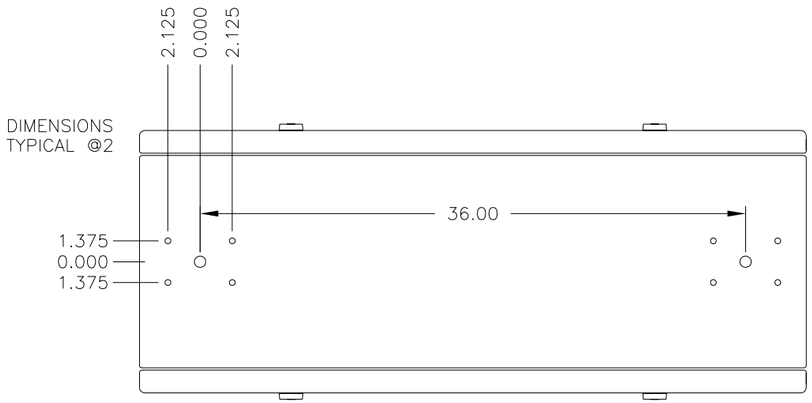
TITLE: SHOP DRAWING, AE–3050–32X120–2.1, DF

DES. BY: DDAGGITT DRAWN BY: DDAGGITT DATE: 19MAR99

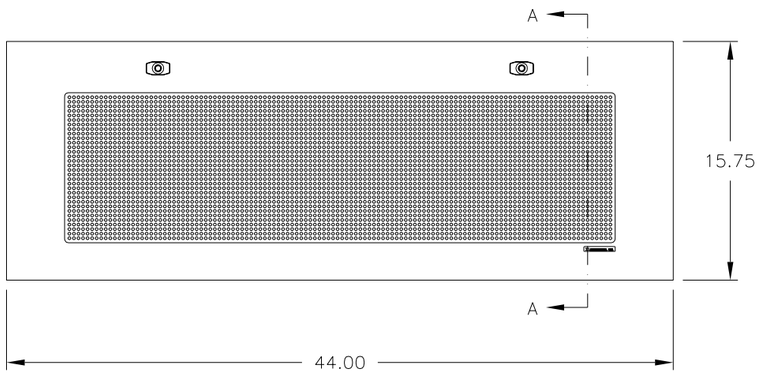
REVISION APPR. BY:

SCALE: 1=10

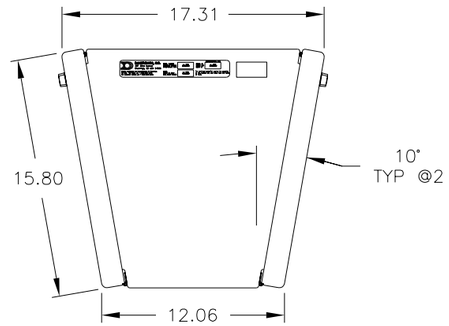
8049-E10B-113557



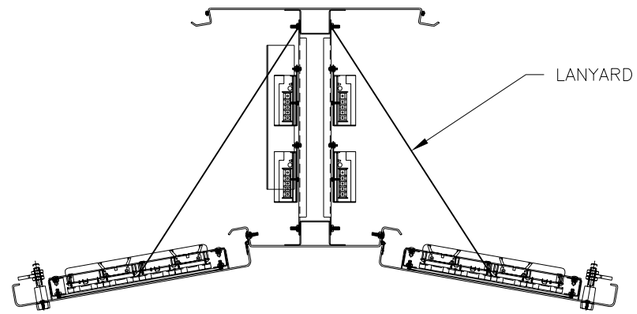
TOP VIEW



FRONT AND REAR VIEW



RIGHT SIDE



SECTION VIEW A–A

SHOWN WITH DOORS HINGED OPEN.

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. ESTIMATED WEIGHT: 85 LBS.
3. DISPLAY POWER REQUIREMENTS:
   120VAC, 2.0 AMPS, 240 WATTS.
4. CABINET AND DOOR ARE ALL ALUMINUM CONSTRUCTION.
5. CABINET AND DOOR FINISH IS FLAT BLACK.
6. FACE PANEL IS 0.118" (0.125 NOMINAL) POLYCARBONATE.
7. EACH MATRIX IS 32X120 MONOCHROME L.E.D.'S 0.3" C–C.
8. FRONT ACCESS FOR SERVICING BY USING A KEY TO OPEN.
   KEY IS SUPPLIED BY DAKTRONICS.
9. COMPRESSION LATCH COLOR: POWDER COATED BLACK.

REV.	DATE	DESCRIPTION	BY	APPR.
2	23FEB00	MADE MOUNTING C–C SPACING 36.00. ADJUSTED WEIGHT TO 85 LBS. CHANGED WAY FACE TILT WAS DIMENSIONED TO MAKE MORE CLEAR.	DJD	
1	13JUL99	CHANGED "TO BE DETERMINED" DIMENSION ON TOP VIEW TO 30".	DJD	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ARINC

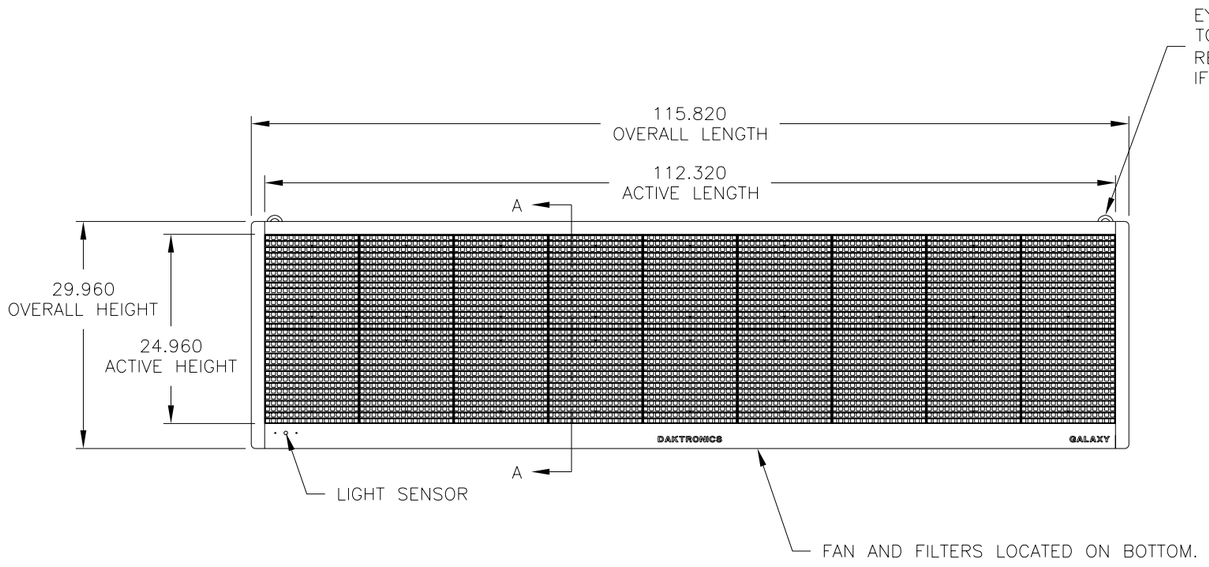
TITLE: SHOP DRAWING, AE–3050–32X120–2.1, DSLANT

DES. BY: DDAGGITT DRAWN BY: MMAMMENGA DATE: 03JUN99

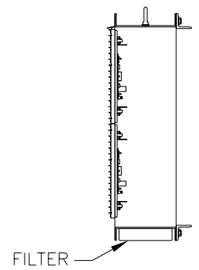
REVISION APPR. BY:

SCALE: 1=10

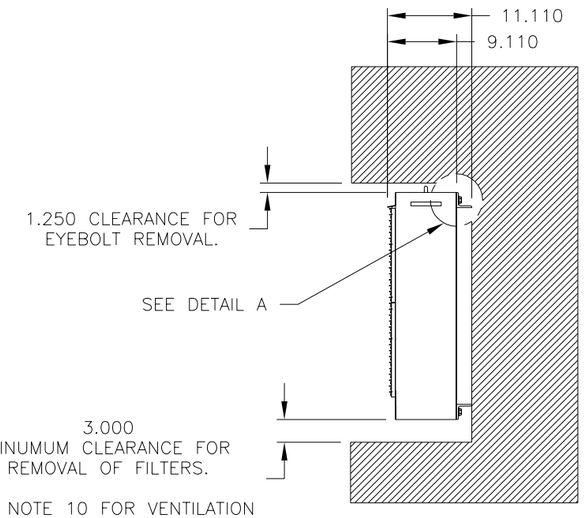
8049- 10B -116640



FRONT VIEW

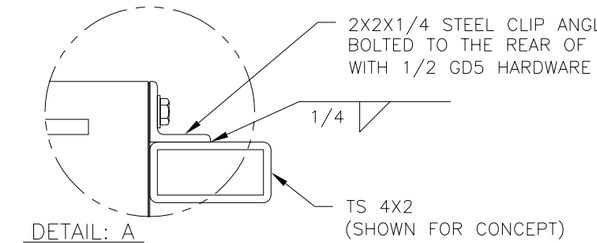


SECTION: A-A
(SCALE 1=20)

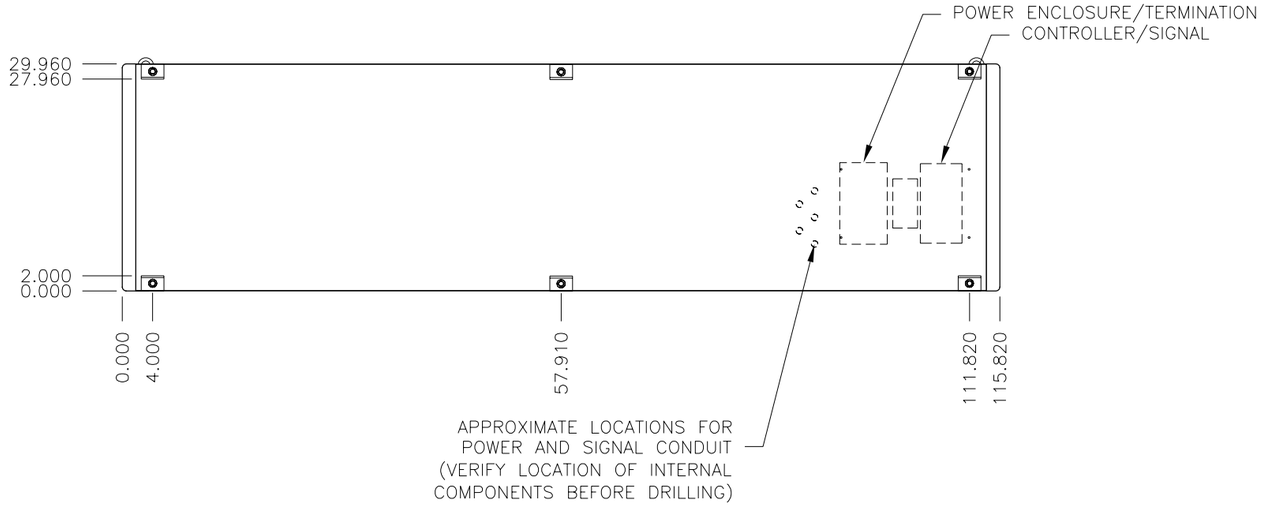


VIEW SHOWN WITHOUT INTERIOR COMPONENTS

SIDE VIEW



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 6 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 10 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 280 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS, 672 WATTS 5.6 AMPS @120VAC.

DAKTRONICS, INC. BROOKINGS, SD 57006

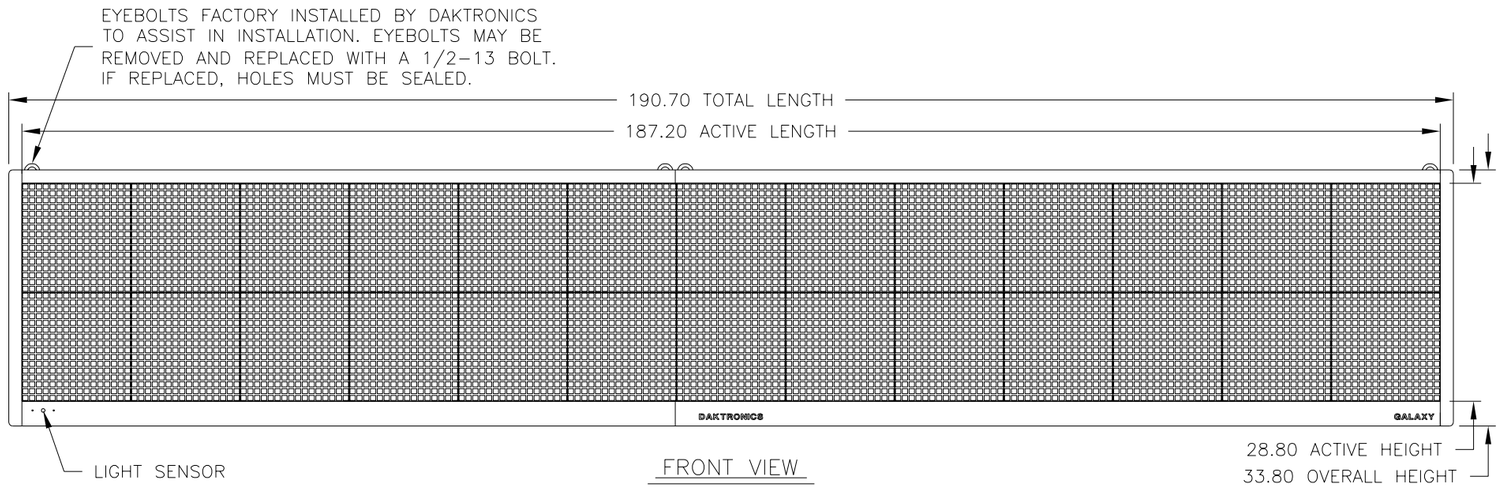
PROJ: THELEN AUTO GROUP

TITLE: SHOP DRAWING, AF-3050-32144-20-A

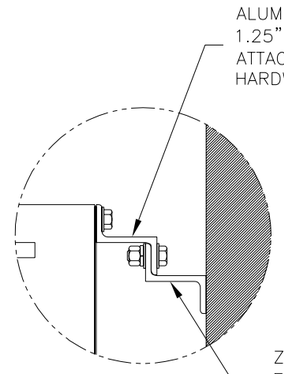
DES. BY: MMAMMENGA DRAWN BY: EYOUNG DATE: 30AUG02

REVISION | APPR. BY: | SCALE: 1=20 | 10288-E10B-174520

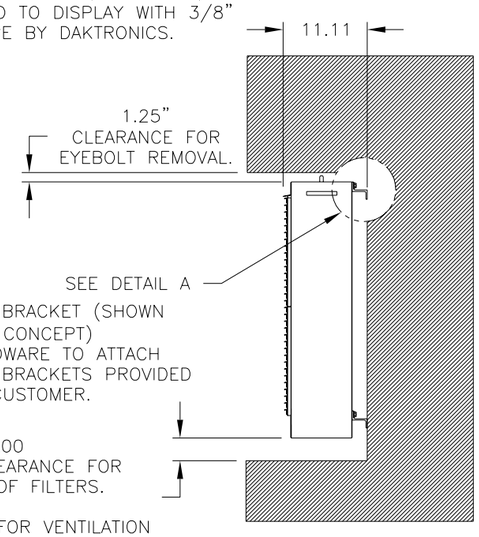
REV.	DATE	DESCRIPTION	BY	APPR.



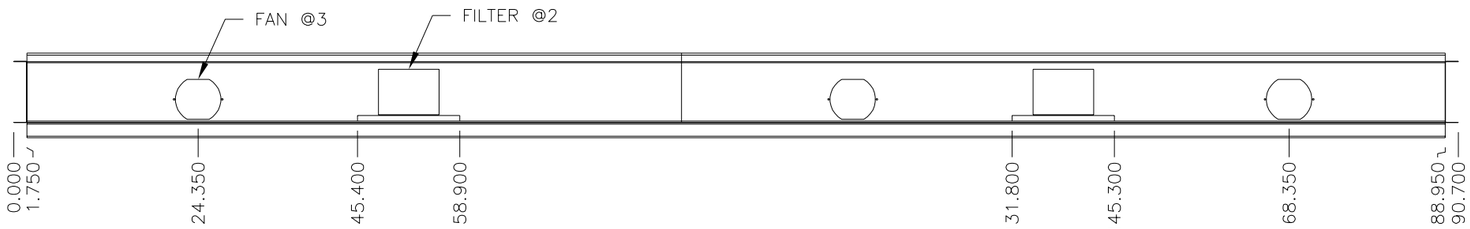
FRONT VIEW



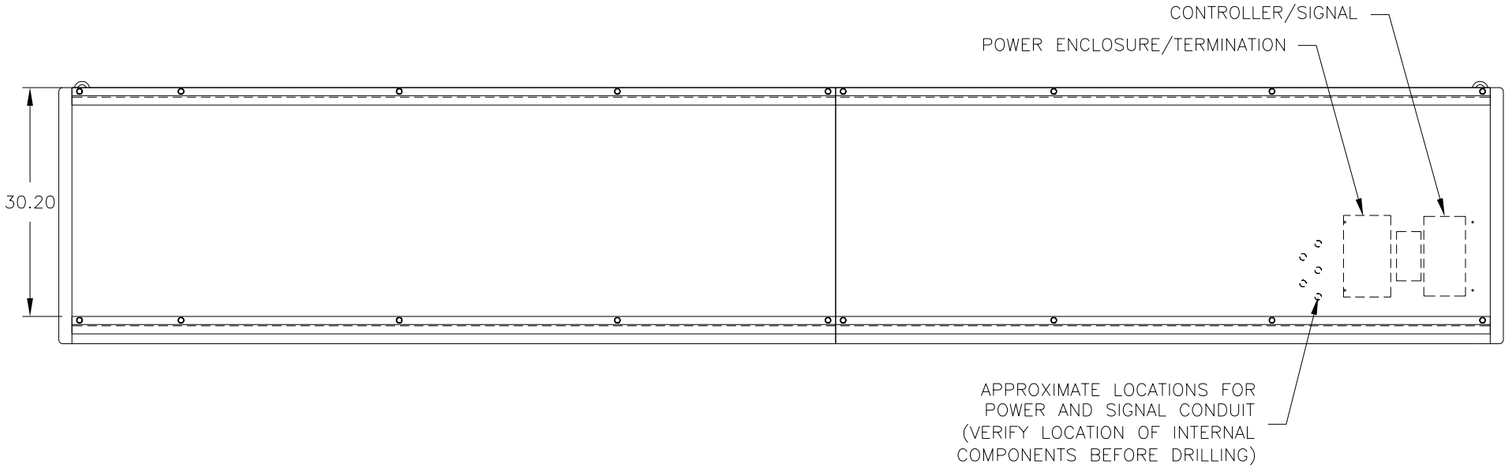
DETAIL: A
(SCALE 1=5)



SIDE VIEW



BOTTOM VIEW



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. POWER REQUIREMENTS: 1444 WATTS, 12AMPS @ 120VAC PER DISPLAY.
10. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
11. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 19 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (14.4" X 14.4" ACTIVE AREA).
12. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
13. APPROXIMATE WEIGHT PER DISPLAY: 500 LBS.
14. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: NEWARK INTERNATIONAL AIRPORT

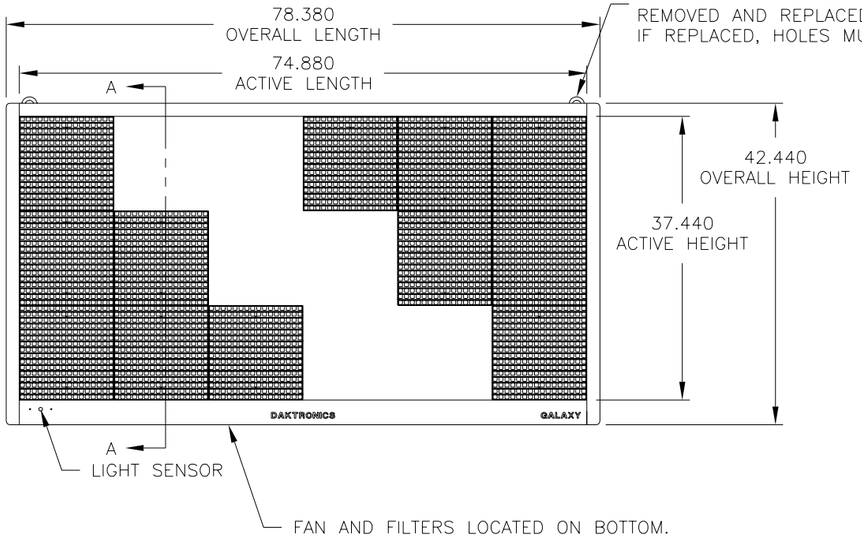
TITLE: SHOP DRAWING-AF-3050-32208-6-A

DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 19NOV01

REVISION APPR. BY:

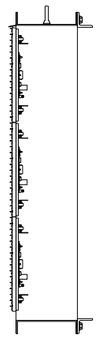
SCALE: 1=20

9881-E10B-159062

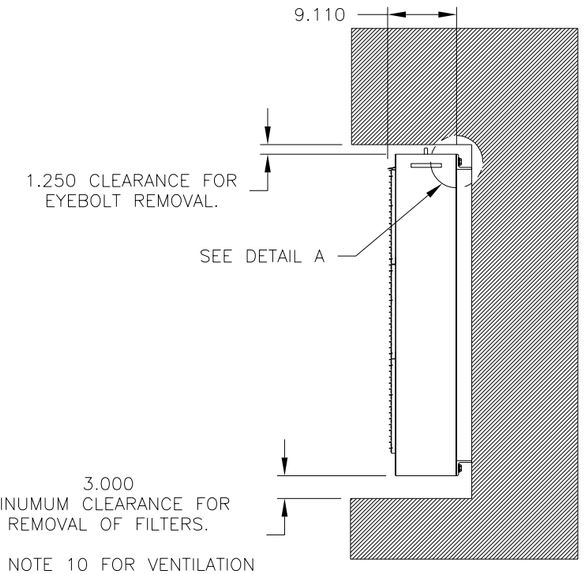


EYEBOLTS FACTORY INSTALLED BY DAKTRONICS TO ASSIST IN INSTALLATION. EYEBOLTS MAY BE REMOVED AND REPLACED WITH A 1/2–13 BOLT. IF REPLACED, HOLES MUST BE SEALED.

FRONT VIEW



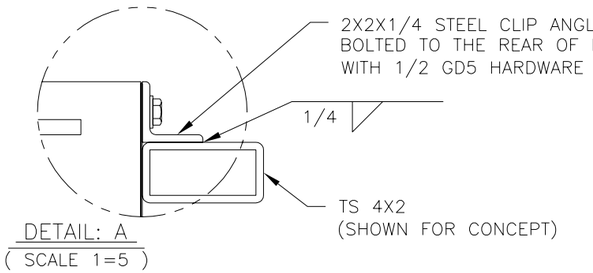
SECTION: A–A
(SCALE 1=20)



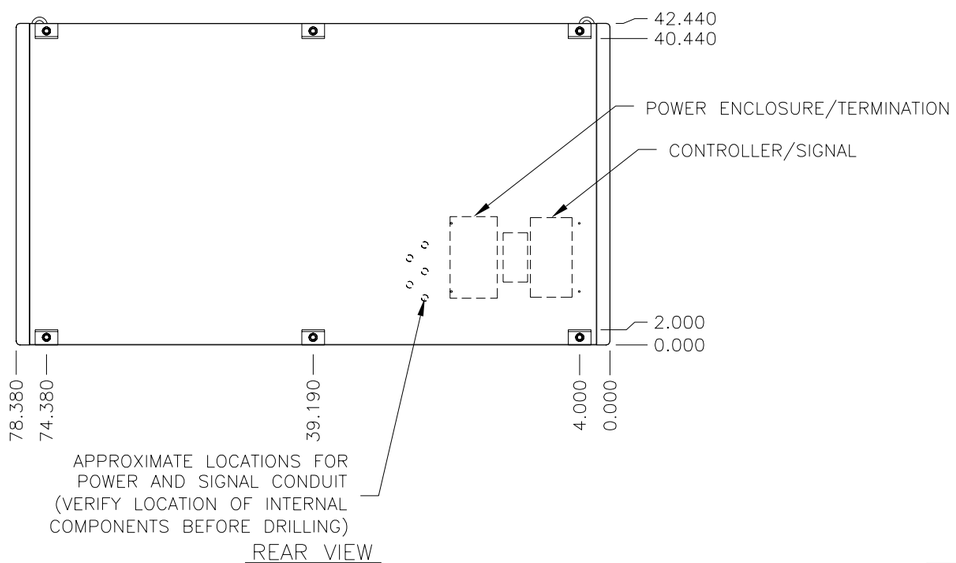
SEE NOTE 10 FOR VENTILATION REQUIREMENTS.

SIDE VIEW

VIEW SHOWN WITHOUT INTERIOR COMPONENTS



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 10 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 360 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS; 672 WATTS, 5.6 AMPS @120VAC.

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: NAVAL RESEARCH LAB

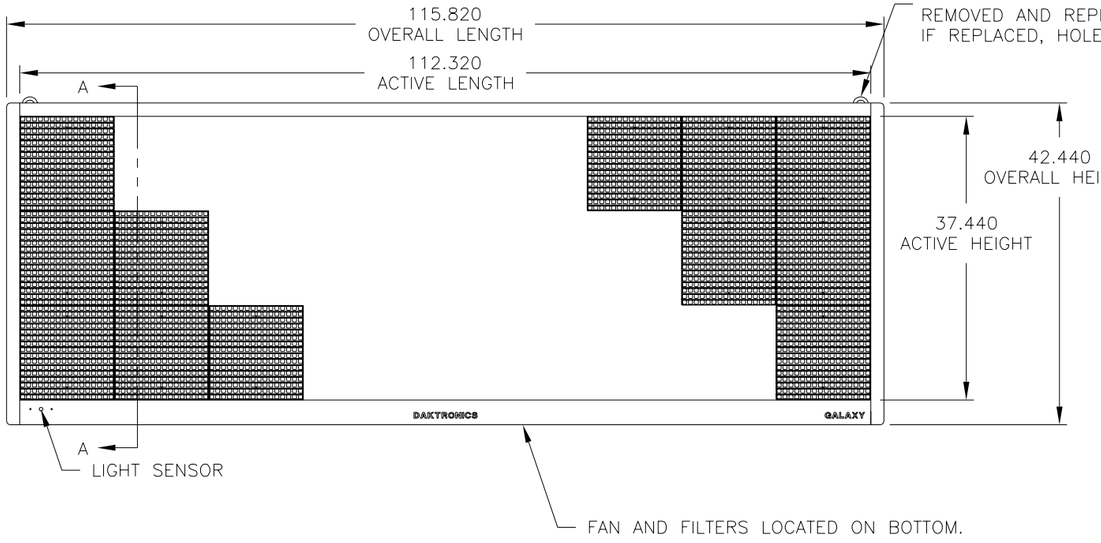
TITLE: SHOP DRAWING, AF–3050–4896–20–A

DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 19AUG02

REVISION APPR. BY:

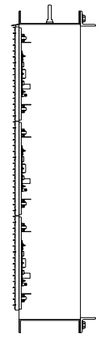
SCALE: 1=20

10270-E10B-173749

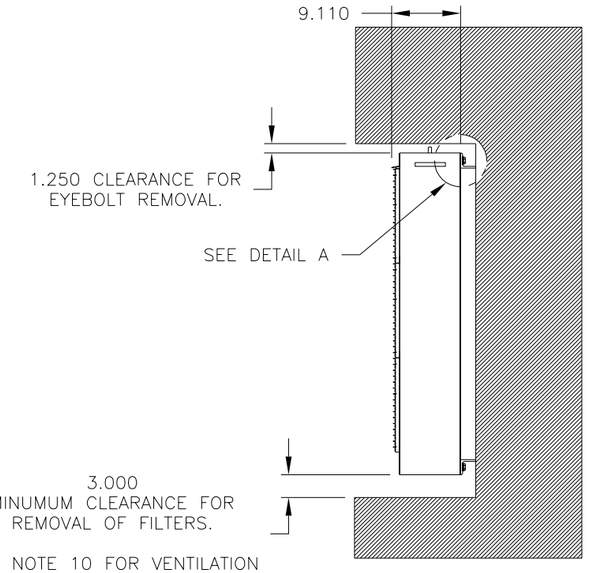


FRONT VIEW

EYEBOLTS FACTORY INSTALLED BY DAKTRONICS TO ASSIST IN INSTALLATION. EYEBOLTS MAY BE REMOVED AND REPLACED WITH A 1/2–13 BOLT. IF REPLACED, HOLES MUST BE SEALED.



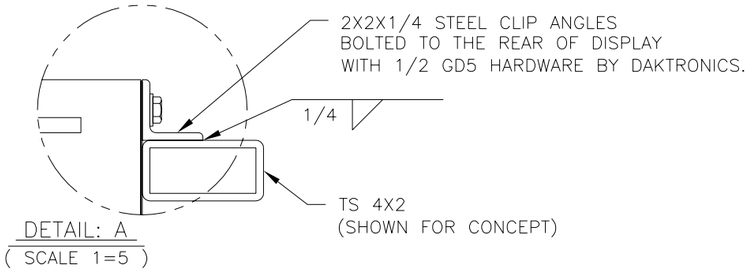
SECTION: A–A
(SCALE 1=20)



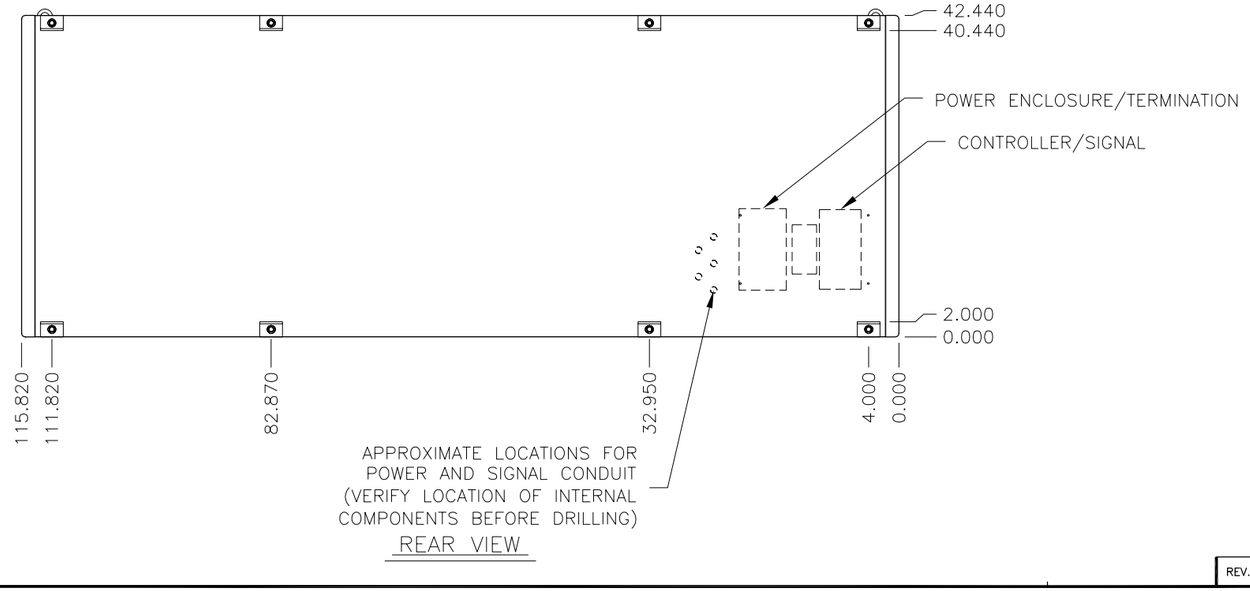
SEE NOTE 10 FOR VENTILATION REQUIREMENTS.

VIEW SHOWN WITHOUT INTERIOR COMPONENTS

SIDE VIEW



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 10 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 540 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS; 991 WATTS, 8.3 AMPS @120VAC.

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: DOMINION VIRGINIA POWER

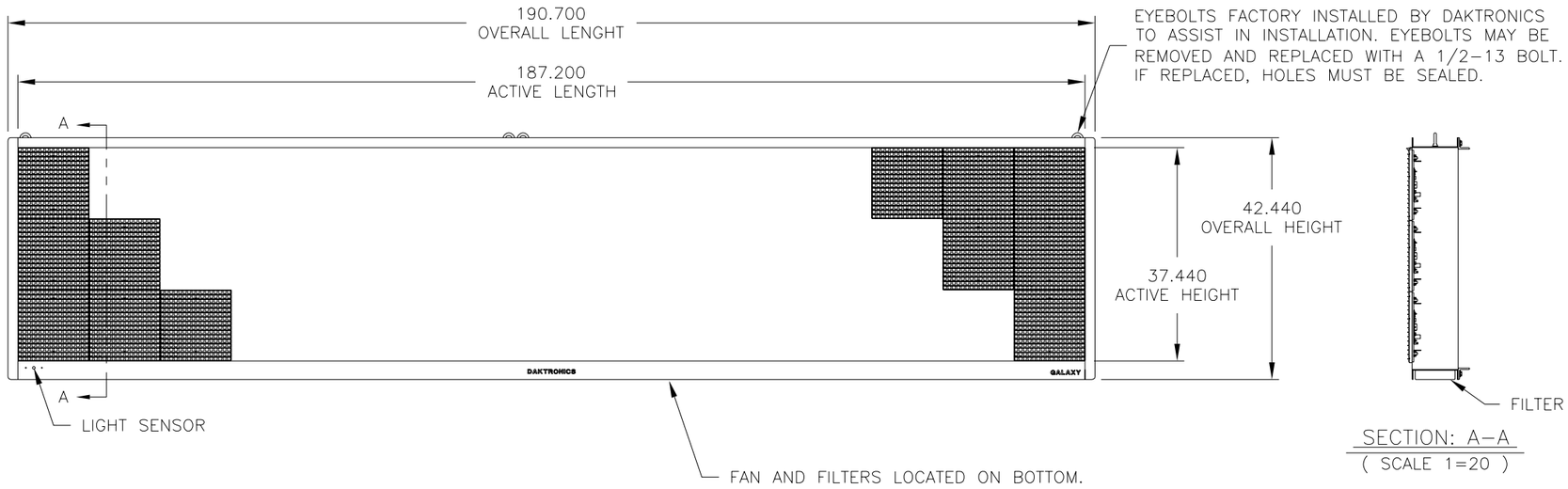
TITLE: SHOP DRAWING, AF–3050–48144–20–A

DES. BY: MMAMMENGA DRAWN BY: MSTUBBE DATE: 20AUG02

REVISION APPR. BY:

SCALE: 1=20

10275-E10B-173823

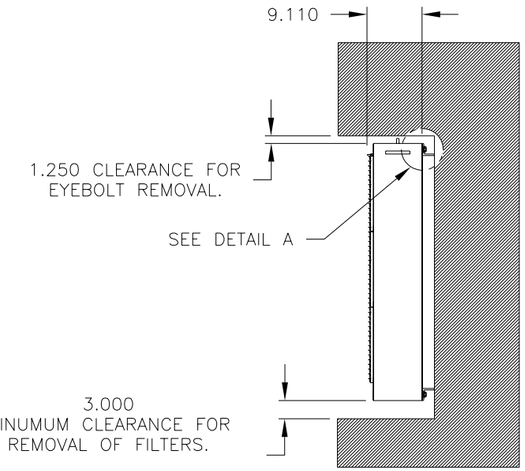


FRONT VIEW

EYEBOLTS FACTORY INSTALLED BY DAKTRONICS TO ASSIST IN INSTALLATION. EYEBOLTS MAY BE REMOVED AND REPLACED WITH A 1/2-13 BOLT. IF REPLACED, HOLES MUST BE SEALED.

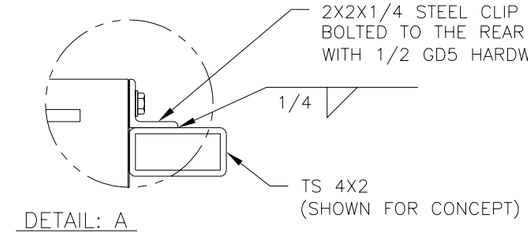
SECTION: A-A
(SCALE 1=20)

VIEW SHOWN WITHOUT INTERIOR COMPONENTS

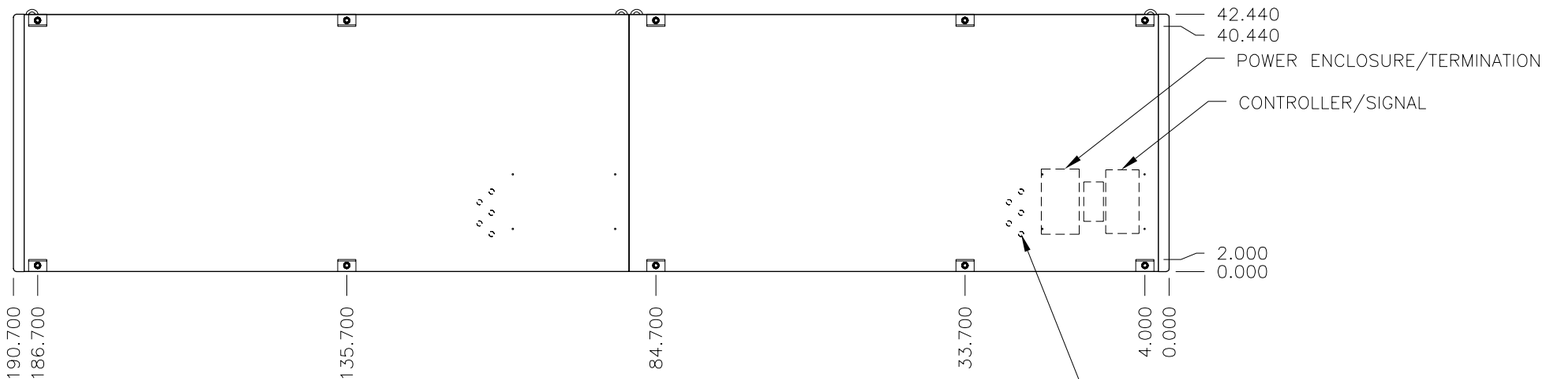


SEE NOTE 10 FOR VENTILATION REQUIREMENTS.

SIDE VIEW



DETAIL: A
(SCALE 1=5)



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 12 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 19 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 900 LBS.
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS; 1629 WATTS, 13.6 AMPS @120VAC.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: WESTCHESTER COUNTY AIRPORT

TITLE: SHOP DRAWING, AF-3050-48240-20-A

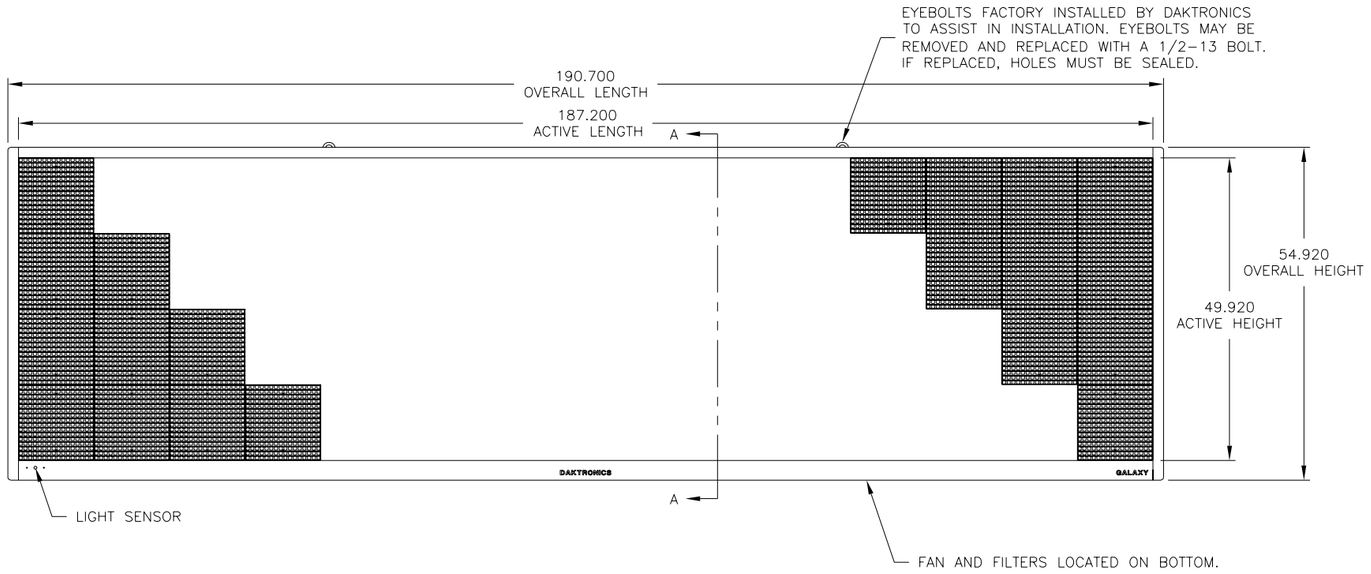
DES. BY: MMAMMENGA DRAWN BY: EYOUNG DATE: 24 OCT 02

REVISION APPR. BY:

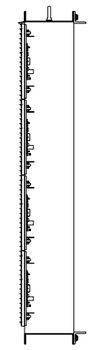
SCALE: 1=25

10374-E10B-177427

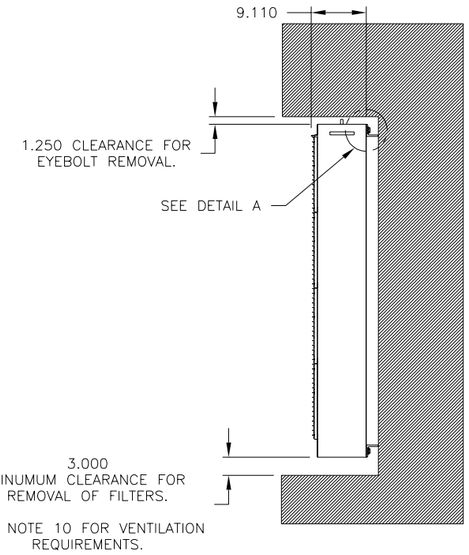
REV.	DATE	DESCRIPTION	BY	APPR.



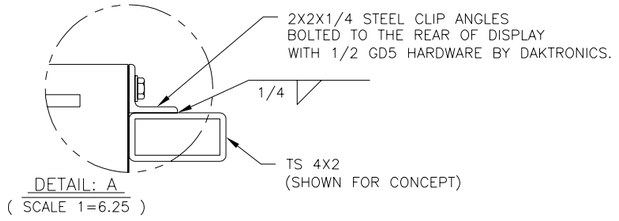
FRONT VIEW



SECTION: A-A
(SCALE 1=25)

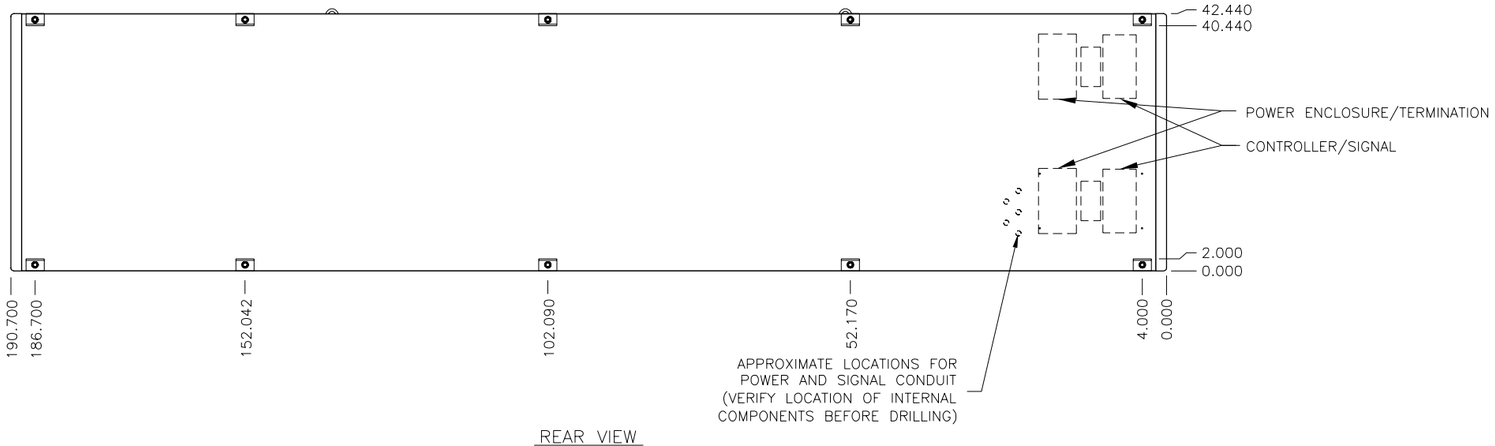


VIEW SHOWN WITHOUT INTERIOR COMPONENTS



DETAIL: A
(SCALE 1=6.25)

SIDE VIEW



REAR VIEW

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DISPLAY OF ALL ALUMINUM CONSTRUCTION.
3. DISPLAY CABINET COLOR IS FLAT BLACK.
4. FRONT ACCESS FOR SERVICE
5. THE DISPLAY IS BOTTOM VENTILATED
6. MINIMUM BOTTOM CLEARANCE IS 3.00".
7. MINIMUM TOP CLEARANCE IS 1.25"
8. MAIN ELECTRICAL DISCONNECT TO BE FURNISHED BY CUSTOMER.
9. DAKTRONICS IS NOT RESPONSIBLE FOR HARDWARE ATTACHING DISPLAY TO STRUCTURE.
10. VENTILATION: IN ENCLOSED CABINET SITUATION, 6 SQUARE INCHES OF UNOBSTRUCTED OPENING PER MODULE MUST BE PROVIDED TO INSURE ADEQUATE DISPLAY COOLING. ALLOWANCES MUST BE MADE TO COMPENSATE FOR THE PERCENTAGE OF A MATERIAL COVERING THE OPENINGS IN THE STRUCTURE. FOR ADEQUATE COOLING, FORCED VENTILATION OF THE ENCLOSED STRUCTURE MAY BE REQUIRED. IF AIR MUST BE FORCED INTO THE ENCLOSED CABINET, 10 CUBIC FEET PER MINUTE MUST BE PROVIDED PER MODULE (12.48" X 12.48" ACTIVE AREA).
11. CUSTOMER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE STRUCTURE THE DISPLAY IS MOUNTED TO.
12. APPROXIMATE WEIGHT PER DISPLAY: 1200 LBS. (UNCRATED)
13. DO NOT MOUNT THROUGH THE CHANNEL IN THE FILTER AREA.
14. POWER REQUIREMENTS; 2178 WATTS, 18.15 AMPS @120VAC.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CALGARY AIRPORT AUTHORITY

TITLE: SHOP DRAWING, AF-3050-64240-20-A

DES. BY: MMAMMENGA DRAWN BY: MMAMMENGA DATE: 11JUL02

REVISION APPR. BY:

SCALE: 1=25

10162-E10B-171101

REV.	DATE	DESCRIPTION	BY	APPR.